

COMMITTEE WORKSHOP  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of: )  
 )  
Informational Proceeding and )  
Preparation of the 2005 Integrated) Docket No.  
Energy Policy Report ) 04-IEP-01-C  
 )  
Re: California/Mexico Border )  
Energy Issues )  
\_\_\_\_\_ )

SAN DIEGO ASSOCIATION OF GOVERNMENTS  
BOARD ROOM  
401 B STREET  
SAN DIEGO, CALIFORNIA

WEDNESDAY, MAY 18, 2005

9:35 A.M.

Reported by:  
Troy A. Ray  
Contract No. 150-04-002

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMISSIONERS PRESENT

John Geesman, Presiding Member

James Boyd, Associate Member

ADVISORS PRESENT

Michael Smith

Melissa Jones

STAFF and CONTRACTORS PRESENT

Tim Olson

Eric Knight

John Kessler

Jim Adams

Tom Murphy  
Aspen Environmental Group

Nicholas Puga  
Navigant Consulting

ALSO PRESENT

Henry Abarbaneo  
Council Member, City of Del Mar  
San Diego Association of Governments

Alan Sweedler  
San Diego State University

Steve Taber  
Princeton Development Corporation

Scott Anders  
San Diego Regional Energy Office

Michael Brown  
Brown Vince Associates

ALSO PRESENT

Scott Stormet  
North American Development Bank

Joe Maruca, Supervisor  
County of Imperial

Cecelia Aguillon  
Kyocera Solar, Inc.

Tom Blair  
City of San Diego

Carlos Larios  
Transnational Consulting

David L. Geier  
San Diego Gas and Electric Company  
Semptra Energy

Jeff Miller  
California Independent System Operator

Bill Powers  
Powers Engineering  
Border Power Plant Working Group

Dan Perkins  
Sierra Club

David Taylor  
San Diego Gas and Electric Company  
Southern California Gas Company

Carla Garcia Zendejas, Attorney  
Border Power Plant Working Group in Tijuana

Francisco Juan D  ez  
United States Environmental Protection Agency

Angela Shaffer Payne  
San Diego Airport District

Greg Newhouse  
San Diego Area Clean Cities Coordinator  
San Diego Regional Clean Fuels Coalition  
San Diego Miramar College

ALSO PRESENT

Bill Figge  
Caltrans

Sergio Pallares  
Caltrans

Byron Wear  
Carrizo Gorge Railway

Sergio Reyes  
Carrizo Gorge Railway

Skip Fralick  
Sustainable Earth Enterprises

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## 1 P R O C E E D I N G S

2 9:35 a.m.

3 MR. ABARBANEO: Good morning. Welcome;  
4 please have a seat. Good morning; I'm Henry  
5 Abarbaneo. I'm a Council Member from the City of  
6 Del Mar and have the privilege to be the cochair  
7 of SANDAG's energy working group, which in its  
8 turn has the privilege of cosponsoring this  
9 morning, with the California Energy Commission,  
10 this day of discussions on border energy issues.

11 The energy working group was formed by  
12 SANDAG about a year and a half ago to implement  
13 the regional energy strategy which was put  
14 together with contributions from stakeholders all  
15 over the region.

16 And we've been working very closely with  
17 stakeholders as diverse as the Sierra Club  
18 (indiscernible), businesses represented by  
19 Qualcomm, SDG&E, and representatives from all the  
20 cities and the county in our region. So it is our  
21 privilege to be here today as one of our several  
22 workshops which have been held on transmission,  
23 energy issues in the summer of 2005, and will be  
24 held approximately every month from now into the  
25 indefinite future, touching on major issues for

1       our region.

2               So I want to thank Commissioners Geesman  
3       and Boyd for coming down and spending the time in  
4       San Diego today on this very important issue. And  
5       turn it over to you, thank you very much for being  
6       here.

7               PRESIDING MEMBER GEESMAN: Thank you,  
8       Henry, and please convey our thanks to SANDAG for  
9       graciously hosting us again. I think this is the  
10      third time we've been here in a little under a  
11      year. It's a very good facility and it has helped  
12      us, I think, have several very productive  
13      discussions.

14              We're fortunate in this region to have a  
15      lot of the problems that the State of California  
16      confronts in its energy system represented in  
17      microcosm, but with the added benefit, and I do  
18      believe it's a benefit, that this region has a  
19      more actively engaged public, and more carefully  
20      organized groups of stakeholders to provide input  
21      into this discussion than either the larger  
22      southern California metropolitan area or northern  
23      California.

24              And I can't tell you how much we have  
25      benefitted over the last couple of years in trying



1 to evaluate issues that confront this particular  
2 region, and then generalize from that on a  
3 statewide basis. It's greatly informed out of  
4 consideration, and I think made our policy  
5 recommendations stronger as a result.

6 Today we are focused on the interaction  
7 across the border of energy, the environmental and  
8 economic development issues. We've recognized for  
9 a long time, thanks in no small part to my  
10 colleague, Commissioner Jim Boyd, the importance  
11 of the California/Mexico interaction in each of  
12 these areas.

13 We've attempted to promote a cross-  
14 border binational perspective on these issues  
15 because we think that the border does not in any  
16 way, other than an artificial and perhaps legal  
17 fashion, divide the energy interests or  
18 environmental interests or economic development  
19 interests that confront both countries.

20 Commissioner Boyd has served as the  
21 state's representative to the Board of Governors  
22 conference on energy issues for a considerable  
23 period of time now. He has informed our  
24 Commission of the importance of these issues and I  
25 think helped very much to focus our staff work.

1                   We've got, I think, a very good databank  
2           now of staff reports that will better inform the  
3           discussion. We've got a number of panels  
4           organized for today, and a very crowded agenda. I  
5           will try to do my best to keep us on time. We do  
6           expect to wind up around 4:30.

7                   Commissioner Boyd.

8                   COMMISSIONER BOYD: Thank you,  
9           Commissioner Geesman. And you pretty well covered  
10          the points I would have made. That is that while  
11          we're here to continue the process of preparing  
12          the 2005 Integrated Energy Policy Report, all that  
13          we have learned and continue to learn in the  
14          Committee meetings and workshops we have here are  
15          used to staff us out, so to speak, in the work  
16          that we do with the Board of Governors conference,  
17          particularly the energy worktable.

18                  And so I take what I learn from these  
19          meetings to the meetings of the work table and to  
20          the annual meeting of the Board of Governors.

21                  So, with that, I think I'll turn the  
22          mike back to you and we'll get the meeting  
23          started, because we have a pretty full agenda.  
24          And I would agree, we have a very good collection  
25          of staff reports. I commend the staff for a job

1 well done and putting a lot of information  
2 together for this hearing. And we look forward to  
3 a lot of input on this subject.

4 PRESIDING MEMBER GEESMAN: Our first  
5 panel is on energy supply and demand. Tim Olson,  
6 you must be here somewhere. There you are. Have  
7 you assembled the right people here?

8 MR. OLSON: I think most of them are  
9 here. Let me just make a couple other comments  
10 here while we set up one of the PowerPoint  
11 presentations.

12 Today we have a series of panel  
13 discussions. And the morning will be a  
14 presentation first summarizing some of the key  
15 findings from our analysis of reports. And then a  
16 series of discussions from several different  
17 interested parties. And then open it to public  
18 comment.

19 And then as we go on the agenda from  
20 energy supply and demand, transmission lines,  
21 natural gas, open to public comment for each  
22 section at the end of the panel discussion.

23 Also today we have simultaneous  
24 translation for those that may want to use it.  
25 The headphones are on the table or in the back

1       here.

2               The panel members, we've asked several  
3       panel member to talk about the supply and demand.  
4       We're covering a lot of different areas, the  
5       overall supply/demand balance; the renewable  
6       energy options; and some of the demand reduction  
7       either in the form of potential or opportunities  
8       for energy efficiency, cogeneration, small  
9       cogeneration. And we also may have comments on  
10      environmental topics.

11             So what I'd like to do is invite a  
12      handful of people that come up to the side here at  
13      the dais. Yeah, including Al Sweedler, Scott  
14      Stormet from North American Development Bank,  
15      Michael Brown, Brown Vince Associates, Steve Taber  
16      from Princeton Development Corporation, if he's  
17      here. Okay. Yeah, around the dais here and near  
18      microphones.

19             And Scott Anders, also from the San  
20      Diego Regional Energy Office. And I'm not sure if  
21      Dave Geier from SDG&E is here. Might come in  
22      later.

23             So, to begin with we've asked two of our  
24      consultants to do a quick overview of some of the  
25      topics in this area. And the presentations will

1 be made by Tom Murphy of Aspen, one of our  
2 contractors. And also Nick Puga from Navigant  
3 Consulting.

4 And I'd like them to go through some  
5 quick overview of this area. And the other thing  
6 we have is a number of questions that we'd like  
7 the panel members to comment on, or any other  
8 comments you have, on the whitepapers or any of  
9 the presentations today. So, maybe, Tom, if you'd  
10 start the --

11 MR. MURPHY: Okay. Can everybody hear  
12 me? My name's Tom Murphy with Aspen Environmental  
13 Group. We provide engineering and environmental  
14 technical assistance to the California Energy  
15 Commission for facility planning and licensing  
16 programs.

17 Unfortunately, Mel Willis, the project  
18 manager for these studies is out of the country  
19 and is not able to attend this meeting. However,  
20 Mel has briefed me on the issues of the study and  
21 I'll describe the results in the presentation.

22 Next slide, please. Overall the study  
23 found that electricity demand in San Diego will  
24 continue to grow by approximately 2 percent  
25 through 2009. After 2010 growth rates will be

1 approximately 1.5 percent annually.

2 Energy demand in Baja, California  
3 expected to grow at an average of 7 percent a year  
4 between the time periods of 2004 and 2013. In  
5 order to meet the growing demand for electricity  
6 the energy sectors of both California and Baja,  
7 California are becoming increasingly integrated.

8 And finally, this study found no  
9 electricity capacity shortfalls anticipated on  
10 either side of the border through 2012.

11 The way we have this presentation set up  
12 is I'm going to describe the San Diego side of the  
13 border, and Nick Puga from Navigant will be  
14 describing Baja, California.

15 So this first part, we'll describe a  
16 little about the energy and supply and capacity of  
17 the San Diego area. With regard to the supply,  
18 SDG&E imports approximately 60 percent of its  
19 electricity from outside the region. The  
20 remaining 40 percent is comprised of two aging  
21 baseload facilities, Encina Power Plant and South  
22 Bay Power Plant. Both could retire by 2008.

23 The other 40 percent comprised of small  
24 and medium-sized peaking plants and onsite  
25 generators, as well as 20 percent interest in San

1        Onofre, which is licensed to operate through 2022.  
2        I think everybody's aware that they're going  
3        through a steam generator replacement project  
4        there at San Onofre right now.

5                There's also two new energy projects  
6        under construction, the Palomar Escondido Energy  
7        Project, which is 546 megawatts, and Otay Mesa  
8        Power Plant, which is 510 megawatts.

9                With regard to the IID area, IID is a  
10       net exporter of electricity. For example, the  
11       total IID resources were 835 megawatts in 2002  
12       compared to peak demand of 540 megawatts during  
13       the same year.

14               Although Senate Bill 1078 mandates a 20  
15       percent renewable portfolio mix by 2017, SDG&E is  
16       committed to achieving this goal by 2010; and 24  
17       percent mix by 2014. This graph represents the  
18       resource stack that SDG&E believes it will likely  
19       be able to procure in the near future.

20               A key feature of SDG&E's plan is the  
21       addition of significant geothermal resources from  
22       the Salton Sea after 2010. However, this is  
23       dependent on upgrading the facilities in Imperial  
24       County.

25               Now I'll turn it over to Nick Puga from

1 Navigant to talk a little bit about the supply and  
2 demand in Baja, California.

3 MR. PUGA: Good morning; my name is  
4 Nicholas Puga with Navigant Consulting. Let me go  
5 over it quickly.

6 In 2004 the Baja, California area, which  
7 is served by CFE and this is a system that is not  
8 interconnected to the Mexican mainland, but only  
9 to the United States, peaked at about 1940  
10 megawatts in the summer in month of August.

11 The area is really integrated by two  
12 areas that behave in a dissimilar manner, the  
13 Valley, which includes Mexicali, which peaks in  
14 the summer at about 1100 megawatts, and the  
15 coastal area that includes Tijuana and Tecate and  
16 Ensenada, which peaks in the winter at about 550  
17 megawatts.

18 This area has shown a historical growth  
19 for the ten years between 1993 to 2003 of about  
20 6.3 percent. And in the latest official forecast  
21 of the CFE Mexican load shown here, it shows a  
22 forecast growth of 6.3 percent for the peak.

23 The energy sales last year in 2004 were  
24 over 8 million megawatt hours. And the energy  
25 sales for the last ten years grew at about 7.5



1       percent.

2               The current forecast is the energy  
3       consumption will continue to grow about 7 percent;  
4       but if one compares the actual growth in  
5       statistics for the 2000 and 2003 period, one can  
6       see that the forecast was significantly higher  
7       than the actual sales growth, which was a 4.8  
8       percent. Now in the 2003/2004 period the growth  
9       dropped even further to 4.2 percent.

10              The makeup of the energy consumers, the  
11       electricity consumers in the Baja, California  
12       Norte area is interesting. It shows a  
13       distribution of customers by class with the group  
14       that represents roughly about 11 percent of the  
15       customers in reality contributes to a significant  
16       consumption of 46.6 percent of the energy  
17       consumed, and that's the commercial and it's one  
18       industrial customer.

19              The large industrial customers with  
20       number over 1 megawatt number only about 60 or 75.  
21       One of the things that is interesting to note is  
22       that the tariffs paid by that commercial/  
23       industrial group outside of the municipal service  
24       tariffs for municipal lighting are the highest at  
25       about 9.8 cents/kilowatt hour.

1           So it indicates that there is a  
2           significant interest of that group of customers  
3           for energy conservation measures so they can  
4           reduce their energy costs.

5           The energy load patterns one can see  
6           that I have ascribed for Baja, California Norte  
7           shows how in the summer months, which are July,  
8           August and September, air conditioning loads drive  
9           the load to the 1940 megawatts. And energy  
10          consumption follows fairly closely with that over  
11          winter peak driven by the coastal areas.

12          (indiscernible) currently has a  
13          installed generation capacity of 2652 megawatts,  
14          with a mix, with a significant share of renewable  
15          resources represented by geothermal power of 620  
16          megawatts in Cerro Prieto facilities; 985  
17          megawatts of combined cycle, gas-fired facilities  
18          of fairly recent vintage; and 620 megawatts  
19          burning residual oil, mostly concentrated among  
20          the Rosarito/ Tijuana area. Finally, 327  
21          megawatts of gas turbines burning diesel.

22          In order to meet the significant growth  
23          of the area, CFE will add roughly 1282 megawatts  
24          between today and 2010. And this table shows --  
25          it might be hard to read for some of you, but if

1       you have a copy of the paper -- are going to be  
2       based on converting the Presidente Juarez  
3       facilities to use 150 megawatts from burning  
4       residual oil to natural gas, based on the new  
5       availability of natural gas in the area.

6               And building up the Mexicali II  
7       facility, which is 247 megawatts combined cycle  
8       capacity, which will now be placed at the Rosarito  
9       site in spite of its name, Mexicali II.

10              There are other facilities that are  
11       planned for 2010 that include a solar contingent  
12       which is the -- a revised design of the Mexicali  
13       II plant, which has a 25 megawatt solar steam  
14       facility -- by avoided costs.

15              In the bottom part of the table what I  
16       tried to do is to see what the increased total  
17       capacity in generation, see if he has planned in  
18       the planning horizon, which is a ten-year window  
19       that is revised every year versus the goals demand  
20       they have to satisfy.

21              And we can see that the criteria for  
22       reserves is also being met from 2009 on. The  
23       criteria for Baja, California Norte is 15 percent  
24       of the available generation capacity as reserves  
25       for the largest generation facility. So we see

1       that CFE will be resource short from 2009 towards  
2       2013 within the planning horizon.

3               We looked at, based on the perceived  
4       interest in conservation in the area, we reviewed  
5       what were the current efforts by the Mexican  
6       government and other organizations in the energy  
7       efficiency area. And we found that although  
8       programs and efforts have been active and have  
9       been in place for several years, the results have  
10      been small due to limited funding within the  
11      federal budget.

12             And I have created a survey that shows  
13      what are these programs all about. One of them is  
14      in the residential sectors mostly insulation for  
15      homes provided by FIPATERM and ASI, which is  
16      established in 1990 in Mexicali to finance  
17      insulation of roofs for homes that consume over  
18      1000 kilowatt hours per month, which is a high  
19      consumption for residential buildings in Mexico.

20             They have, to date, financed about  
21      60,000 roofs, insulated. In 1996 this financing  
22      program was extended to include replacement of  
23      window A/C units and substitution of incandescent  
24      lamps with compact fluorescent lights.

25             To date the program has replaced over

1 45,000 air conditioning units and financed over  
2 400,000 CFLs.

3 In 2002 the financing was extended to  
4 refrigeration replacement programs, and over 5000  
5 energy efficient refrigerators have been financed  
6 to date. The program -- the residents of  
7 Mexicali, San Luis Colorado and Tijuana are  
8 eligible, as well as the rest of Baja, to apply  
9 for the program.

10 In the commercial and industrial area  
11 the (indiscernible) for the savings in the  
12 electric sector, FIDE, has a program that offers  
13 technical assistance and financial support to  
14 buildings, (indiscernible) buildings and industry.

15 FIDE is an organization that is funded  
16 through a surcharge of all electrical goods  
17 purchased by CFE and (indiscernible). And so it  
18 has some financing in the payment of the federal  
19 budget.

20 They recently have added a program to  
21 cater to that group of small commercial/industrial  
22 customers I spoke of that represent 50 percent of  
23 the consumption in Baja. But have so far only  
24 signed 50 participants in Baja as part of 500  
25 nationwide.

1           The program currently focuses on air  
2     conditioning, but while there is some regular  
3     funding, they have a budget request right now with  
4     Congress for \$35 million for the 2005 budget, that  
5     I'm not sure it has been fully approved. They  
6     lack manpower to really reach out to the small  
7     commercial and industrial sector.

8           CFE, the utility, does not have an  
9     energy efficiency program beyond customer  
10    education. The representatives of CFE inform  
11    their customers of the availability of funding  
12    also by FIDE and by FIPATERM. And they encourage  
13    them to apply for the program. And CFE, itself,  
14    only offers interruptible service tariffs to its  
15    large customers, and a modest (indiscernible)  
16    cycling to the residential and small commercial  
17    customers.

18           Finally, FIDE and INFONAVIT, which is a  
19    trust been established to promote public housing,  
20    have started working with developers in their area  
21    to make energy efficient homes. Again, it's a  
22    limited program. They have approximately 600 new  
23    EE homes for sale in the area through those  
24    builders.

25           However, there is a significant

1 potential for additional savings in this area. We  
2 estimate that simply by saving 10 percent of the  
3 time of peak demand for the commercial and  
4 industrial group there is potential for reducing  
5 the peak demand of the region by 85 megawatts.  
6 There's no estimate for residential potential  
7 savings.

8 We looked at a study conducted by the  
9 Western Governors Association for industrial,  
10 commercial and institutional facilities. And the  
11 study identifies a potential savings of over  
12 400,000 megawatt hours of savings per year.

13 Compare that to the 2004 sales for the  
14 commercial, industrial and institutional sales, so  
15 5.7 million, and you can see that that 10 percent  
16 that I mentioned is actually cost effective if the  
17 programs and the formula were in place.

18 I think with that I will --

19 MR. OLSON: Okay, we'd like to also hear  
20 from one of the Energy Commission Staff, Eric  
21 Knight, on any key findings or comments he'd like  
22 to make on environmental issues and opportunities  
23 related to the energy supply and demand. Any  
24 comments, Eric?

25 MR. KNIGHT: I'll address the topic of

1 air quality associated with power plants.

2 MR. OLSON: You want to hold off for the  
3 next section, when doing the sections for --

4 MR. KNIGHT: Okay.

5 MR. OLSON: Okay. The way we separated  
6 these categories today there's definitely overlap  
7 from one to the other. And in some ways it's a  
8 little bit of an artificial separation. We may  
9 have commenters, panel members, later that will  
10 want to come back and comment on this section  
11 here.

12 So what I'd like to do now is go to our  
13 panel members and ask for your comments,  
14 recommendations, insights, anything, any comments  
15 you may want to make to embellish what we have  
16 here, or identify where we're missing information.

17 And if there are pieces of information  
18 that you want us to obtain or think we should  
19 obtain after this workshop, let us know about  
20 that. And any recommendations either on initial,  
21 policy changes at the state, federal, maybe even  
22 in Mexico. Any type of regulatory changes you're  
23 anticipating or suggesting.

24 So what I'd like to do is to start off  
25 with Alan Sweedler. Alan, can you give us some of



1 your initial look at this. And we'll have time  
2 for other comments later, too.

3 COMMISSIONER BOYD: Excuse me, Alan, for  
4 interrupting you, but before you get into this I'd  
5 like to ask the gentleman from Navigant one quick  
6 question. He just -- I look up and he stepped  
7 away. All right, I guess I won't ask him a quick  
8 question.

9 MR. OLSON: There he is. He's back.

10 COMMISSIONER BOYD: You referenced the  
11 conversion of the Juarez plant from oil to gas,  
12 but my question is, is that conversion dependent  
13 on the importation or the import of LNG into Baja?  
14 Or is there an adequate gas supply to provide for  
15 that conversion without the LNG plants?

16 MR. PUGA: My understanding,  
17 Commissioners, is that there is gas available  
18 program by Sempra through the (indiscernible) Baja  
19 Norte to supply that gas.

20 COMMISSIONER BOYD: Okay, thank you.  
21 Excuse the interruption, Tim.

22 MR. OLSON: So, Al Sweedler.

23 DR. SWEEDLER: Good morning and once  
24 again we really appreciate the Commission's  
25 efforts to come to the border region and to meet

1 with people who are living and working here with  
2 our unique set of issues, and also as they affect  
3 the Integrated Energy Policy Report and policies  
4 for California and Baja, California.

5 I believe this is now the second or  
6 maybe even third time that hearings and workshops  
7 have been held here in the region. And I know how  
8 difficult it is, given all the issues going on.  
9 But at some point I would urge somehow, and maybe  
10 we -- we being the energy working group, SANDAG,  
11 and the various other entities in the region --  
12 can help arrange a similar type meeting across the  
13 border in Mexico, notwithstanding all the  
14 difficulties that exist for that.

15 I think what I'd like to do just to  
16 start things off is make some general overall  
17 comments. And as we get into some of the details  
18 I have some details that we can do later on.

19 For the purposes of this hearing and  
20 meeting, the Integrated Energy Policy Report will  
21 be very -- the information here will be directed  
22 towards that, as I understand it. And so that is  
23 a document for California energy planning and  
24 policy in the near future.

25 So one question that immediately needs

1 to be addressed is the activity taking place in  
2 northern Baja, California, how will that directly  
3 relate to the IEPR. And how will that directly  
4 relate to California energy supply and potential  
5 drain, if you put it that way, or need for the  
6 California system to supply the Baja system, or  
7 vice versa.

8 So that's a different question than  
9 looking at the energy systems in Baja, California,  
10 and then looking at them in California,  
11 particularly San Diego and Imperial County.

12 To sort of cull that down what is  
13 happening in northern Baja, California and in  
14 Mexico, in general, that will allow or permit or  
15 arrange for energy supplies that are being  
16 developed there to, with some security and some  
17 basis in fact, to be included in the California  
18 energy supply scenario. This is the panel on  
19 supply and demand.

20 The second issue is it's becoming  
21 obvious that the two energy systems are becoming  
22 integrated de facto. This is an expansion of a  
23 long history of at least electricity sharing  
24 across the border, but now with the potential for  
25 natural gas. There already is natural gas flowing

1 from north to south, and there could very well be  
2 significant quantities flowing from south to  
3 north.

4 Well, what is the context that this is  
5 taking place in? At the moment it's being driven  
6 by market forces. Well, market forces respond to  
7 the market, which is quite rational and expected.  
8 But that doesn't mean that's the best for regional  
9 energy planning for this part of California, or  
10 even for other parts of California.

11 So, that immediately brings up the  
12 question which will be addressed, I think, later,  
13 is how does one incorporate these, you might say,  
14 ad hoc or separate activities, power plants,  
15 transmission lines, liquid natural gas facilities,  
16 renewable projects into some sort of plan, or even  
17 an outline of a plan.

18 Now, at least in this region here, as  
19 the Commission knows, we have developed a regional  
20 energy strategy which is part of the regional  
21 comprehensive plan. An element of that plan does  
22 include exchange of energy with Mexico.

23 I think one of the tasks for the staff  
24 is to work that into the IEPR report, so that's  
25 reflected at a state level. That's one specific

1 element.

2 And the third general comment, just to  
3 start the discussion off, is that we are  
4 inextricably linked environmentally with Mexico.  
5 And the notion that energy developments can take  
6 place in Mexico without having an effect on  
7 California is simplistic and naive. What happens  
8 across the border will have an effect on us  
9 economically, demographically, commercially and  
10 certainly environmentally and relating to our  
11 energy supply.

12 So, the IEPR needs to, what I would say,  
13 address these issues, but it will not be possible  
14 to come to any specific conclusions until we have  
15 some agreements with Mexico.

16 And that brings me to the sort of where  
17 this is all going, is that over time, and how this  
18 is done, is a difficult and complex situation. My  
19 own personal view is that we need to have a  
20 binational regional energy planning entity of some  
21 sort.

22 And what that entity would do, it could  
23 be an informal forum, it could be a more formal  
24 forum. What that entity needs to do is recognize  
25 the linkages and the interdependencies.

1                   One specific example. It was mentioned  
2                   the conversion of the Rosarito facilities from  
3                   heavy fuel oil to natural gas. Now, that is an  
4                   improvement in air quality for the people of San  
5                   Diego. So that is a California issue, not just a  
6                   Mexican issue. Of course, it's also an  
7                   improvement for the air quality for people in  
8                   Tijuana and Rosarito, which we also should be  
9                   concerned about.

10                  But how secure is that natural gas for  
11                  those power plants. That depends very much on the  
12                  market price. It depends on the supply. And we  
13                  already have experienced when supplies are tight,  
14                  those supplies to Mexico were cut off.

15                  Well, you know, we're cutting off our  
16                  nose to spite our face because that electricity is  
17                  imported back to us. But more importantly, Mexico  
18                  will meet its demand any way it can, as we would.  
19                  So if they can't get natural gas securely and at a  
20                  rational price from their perspective, they will  
21                  switch back to fuel oil. Because that's what they  
22                  have in Mexico. It's an indigenous supply for  
23                  them. And that will have implications in  
24                  California. So that's just one example.

25                  Another case specific which is

1       addressed, but I think we need to really elevate,  
2       is the necessity, I would say, not the option of  
3       spending California funds to reduce demand in  
4       Mexico and to increase energy efficiency. Why?  
5       Because that will have a positive impact on the  
6       environment and the whole safety and security of  
7       the energy system for California.

8               So the investments in Mexico benefit  
9       California taxpayers and ratepayers. That  
10      connection needs to be made clear in the report.

11             I think I'll leave it at that to start  
12      the discussion going. Thank you.

13             COMMISSIONER BOYD: Alan, could I ask  
14      you a question?

15             DR. SWEEDLER: Yes, of course.

16             COMMISSIONER BOYD: You recommended a  
17      binational entity be created. The consultant  
18      report for the Energy Commission did recommend  
19      establishing a binational energy planning  
20      agreement. That's a little bit different. Do you  
21      have any comments one way or the other?

22             DR. SWEEDLER: Well, an agreement is  
23      something that could link to the establishment of  
24      an entity. But there needs to be -- this is a  
25      permanent ongoing situation. You know, this is --

1 we are wedded to the future of the two regions  
2 together.

3 So, someone has to enforce this  
4 agreement, or that's not the right word -- someone  
5 has to manage the agreement; someone has to  
6 develop the context; and it needs to be on an  
7 ongoing basis.

8 We have some examples for this, the  
9 Joint Advisory Commission on the Canadian border  
10 with the United States is a permanent cooperative  
11 agreement. In the El Paso/Juarez region there is  
12 another permanent entity that exists.

13 I would say that some agreement between  
14 say the California Energy Commission and the  
15 Government of Mexico, either through its SEMARNAT  
16 or through its more appropriately Secretaria de  
17 Energia, establish a formal government entity with  
18 appropriate input from the private sector, the NGO  
19 sector, the environmental community to constantly  
20 be aware of the changing situation.

21 Because the region is, as you'll see  
22 from the demographic report, the region is  
23 expanding dramatically; the linkages are becoming  
24 even stronger. As was pointed out in previous  
25 workshops, there'll be more people in Mexico, on



1 the Mexican side of the border than the U.S. side  
2 of the border, and Imperial County is growing, as  
3 well.

4 So this development is taking place  
5 right now in a passive way. We'll wake up ten  
6 years from now, we'll find all kinds of power  
7 plants, natural gas facilities, transmission lines  
8 which nobody planned for, but there they are.

9 And that's what this entity would do.  
10 It would provide a rational basis. It would be,  
11 in my view, a benefit to the private sector  
12 because it would provide cleaner rules of the road  
13 for development; it will avoid lawsuits down the  
14 line; and it will be very difficult to do, because  
15 we are dealing with two separate countries.  
16 There's no way to get around that.

17 And that doesn't mean it can't be done,  
18 but if the Energy Commission takes the lead on  
19 this with a sufficient and appropriate rationale  
20 which clearly exists, I believe that progress  
21 could be made along those lines. It doesn't have  
22 to be a heavy-handed regulatory body, but it needs  
23 to have some teeth to direct development in a way  
24 that it's consistent with various plans that have  
25 been emerging.

1                   COMMISSIONER BOYD: Now I put a question  
2                   to you but it's almost a question that also needs  
3                   to be put to the Government of Baja, and that is  
4                   one of the organizations you referenced is a  
5                   national organization, I mean nation-to-nation.  
6                   One you referenced, I believe, is kind of a U.S.  
7                   State and a Mexican State.

8                   So the question in my mind is, is it  
9                   conceivable that California and Baja alone could  
10                  enter into an effective agreement. And I'll ask  
11                  you that question, but I'll leave it on the table  
12                  for others to address.

13                  DR. SWEEDLER: As much as I would like  
14                  to see that happen I don't think the political  
15                  realities in Mexico would allow that. Even though  
16                  there is an attempt to dissolve and decentralize,  
17                  the reality is the energy sector in Mexico at the  
18                  moment is centralized and federally determined.  
19                  That's the reality we have. So we have to work  
20                  with that.

21                  That does not mean that California,  
22                  itself, could not enter into agreements with the  
23                  Mexican energy authorities who, in turn, would  
24                  then begin to identify and even devolve some of  
25                  this authority to a state entity.

1                   But at the moment there is no  
2           counterpart to the California Energy Commission  
3           with the statutory authority that it has. And  
4           when you're dealing with CFE, when you're dealing  
5           with large projects, you just have to recognize  
6           the reality of what Mexico is. And for better or  
7           worse, at the moment and probably for the next  
8           reasonable period of time, it's going to be a  
9           federal type system.

10                   But that doesn't mean that that has to  
11          be a show-stopper. There are lots of agreements.  
12          For instance, the State of Texas has worked out an  
13          agreement with the Mexican authorities to allow  
14          emission offsets and trading between Texas and the  
15          Mexican State, and particularly Juarez.

16                   So there are precedents. It can be  
17          done. But it's not a simple state-to-state or  
18          federal-to-federal.

19                   COMMISSIONER BOYD: Thank you.

20                   MS. JONES: Alan, can I ask a question  
21          about you mentioned briefly the natural gas  
22          supplies aren't reasonably priced and secure.  
23          That the Mexican side could revert to burning fuel  
24          oil.

25                   And I'm wondering if the new

1 construction, the new facilities, the combined  
2 cycle and CTs will have dual fueling capability?

3 DR. SWEEDLER: No, probably not. You  
4 couldn't run a turbine on heavy fuel oil. But  
5 they have steam-generated plants.

6 And put yourself into their situation.  
7 You're planning for CFE. You're under demands to  
8 meet this projected 7 percent, maybe 4 percent,  
9 whatever it is; that's a huge growth rate, either  
10 one. You're going to meet it; that's your  
11 statutory obligation.

12 And if you have -- if PEMEX is knocking  
13 at your door saying, look, what are you buying all  
14 this natural gas for from the U.S., we'll sell you  
15 this oil here. You know, the money stays in the  
16 country; you don't even need hard currency for it.

17 They have some requirements because  
18 Tijuana is a nonattainment zone. There are such  
19 things in Mexico that exist there, as well. They  
20 would much prefer to have the natural gas. But  
21 it's to our benefit that they have it, as well.

22 MS. JONES: Thank you.

23 MR. PUGA: I may be able to shed some  
24 light on this matter. Last December -- there were  
25 two reasons the CFE has decided to go to gas in

1 the Presidente Juarez units. One is cost,  
2 operating cost. And two is that the Tijuana area  
3 is in nonattainment zone according to Mexican  
4 regulations. And -- being fined, they have  
5 pressure from the government to comply with the  
6 government's own requirements for air quality.

7 And so they could not, without violation  
8 of air emissions regulations, go back to fuel oil.

9 Number two, last December they tendered  
10 for long-term supply for all their natural gas  
11 needs in an innovative type of agreement in which  
12 they surrender all the transportation, got surplus  
13 provision capacity agreements to whoever supplied  
14 them with the best price of natural gas for, I  
15 think it was 15 years.

16 They signed that agreement. And so  
17 there is -- I'm not completely familiar with the  
18 force majeure clauses in the contract, but it is  
19 highly likely, given the capacity of  
20 (indiscernible) Norte, that they would lose supply  
21 from Ramburg (phonetic) to those plants.

22 And so in addition Semptra has started  
23 construction on the LNG facility at Costa Azul.  
24 They have already planned to build a new PGN line  
25 (indiscernible) connecting toward Mesa Point, and

1 build compression capacity, additional compression  
2 capacity on (indiscernible).

3 The likelihood of losing gas supply for  
4 those plants in review is very very very small.  
5 And it would be very difficult for CFE to revert  
6 back to oil for technical and economic reasons  
7 because they have no contract for supply for oil  
8 if they decided to change fuels.

9 DR. SWEEDLER: Let me just add to that.  
10 I would agree with that. CFE wants to stay with  
11 natural gas. It's not like they're an unwilling  
12 partner.

13 At the same time, however, although at  
14 the moment now the supplies look pretty good, it  
15 very much depends on price. Very much depends on  
16 price. If the price of natural gas begins to  
17 increase, regardless of what was just said, there  
18 will be pressure for them to look for less  
19 expensive alternatives.

20 And my point is that since we're looking  
21 at through the IEPR, the planning for California's  
22 supply, there is a self interest to maintain a  
23 secure source of supply to the northern Mexican  
24 region because that benefits us as well as Mexico.

25 Now, we can't do much about the price.

1 And that's just a volatile commodity which brings  
2 you into the beginning to plan for a longer term  
3 situation where you have nonfossil fuel sources  
4 of energy, and therefore renewable energy. And  
5 we'll talk about that later.

6 But there's a significant potential for  
7 renewable energy in Baja, California, which again  
8 would benefit California supply and security  
9 because all of this gas is coming from outside  
10 both Baja, California and the southern California  
11 region.

12 So we're setting up a scenario where  
13 we're becoming more and more dependent on fuels  
14 from faraway sources. And that's where the price  
15 volatility comes in. Natural gas will become like  
16 oil shortly. It's an internationally traded  
17 commodity, and we will have very little input into  
18 what we pay for that because it's dominated by the  
19 world market.

20 MR. OLSON: Okay, speaking of renewable  
21 energy, Alan, I don't know if you have time at  
22 this point to comment about your work, the  
23 different organizations, including the San Diego  
24 Regional Energy Office, to update or evaluate the  
25 potential for renewable energy in San Diego,

1 Imperial and Baja.

2 Is there any comment you can make on  
3 that at this point? I know your study is not  
4 quite completed in terms of peer review and any  
5 insights you can give us on that?

6 DR. SWEEDLER: There is a study that's  
7 nearing completion now in this region, which is an  
8 outgrowth of the regional energy strategy, which  
9 is the guiding document for the energy working  
10 group. And I see we have the Chairman here, Henry  
11 Abarbaneo. At least he was here -- is he still  
12 here? Okay. Of that committee.

13 The renewable study group is a  
14 cooperative effort between San Diego State  
15 University, the San Diego Regional Energy Office,  
16 San Diego Gas and Electric and several private  
17 consultants, some of whom you know, Dave Roy, Bob  
18 Bresley, with input from NREL, some of your staff  
19 from the CEC; and one of the teams is the  
20 (indiscernible) de Baja, California in Mexicali.  
21 So we have direct Mexican input.

22 And what we've done is we've been  
23 meeting for close to two years to develop a  
24 technical study of the renewable resource  
25 potential in the San Diego, Baja and Imperial



1 County region.

2 We have now produced a first draft of  
3 that report, and we will be sending it out for  
4 peer review in the next month. We are trying to  
5 meet the IEPR deadlines, which we still need to  
6 get a little more clearly from you. So we would  
7 like to have some numbers to give you that you  
8 could actually use in the report.

9 And so we're in constant communication  
10 with the staff to find out just what your  
11 deadlines are. But I think we can do it. Scott  
12 is a major player here; and he's working very hard  
13 on that.

14 But, --

15 MR. OLSON: Excuse me. Maybe one way  
16 to -- another way to ask that is are any of your  
17 findings at this point -- how do they compare to  
18 the SDG&E procurement plan for renewables?

19 DR. SWEEDLER: Oh, SDG&E is a major -- I  
20 did say SDG&E was a participant, didn't I.  
21 They're a major participant in the study.

22 One of their interests in the study is  
23 to see what the resources are to meet their plan.  
24 It's very consistent with it. In fact, what we  
25 have found is a very large amount of renewable

1 potential energy that's available. In solar in  
2 the form of commercial and residential  
3 photovoltaics in the San Diego region.

4 We've looked at the housing, the roofs.  
5 We're used remote sensing GIS. So we've actually  
6 calculated the roof area and the expansion of the  
7 housing.

8 Plus, NREL did a study for us on central  
9 solar polar station both in Balago (phonetic) area  
10 and in Imperial. And then we've looked at wind  
11 potential, geothermal, small hydro and biogas.

12 And I can give you the range of some  
13 numbers, and until we go through the proper  
14 process where you'll get a formal report, this is  
15 for discussion for today for your information  
16 primarily.

17 And we are talking about over 4000  
18 megawatts of potential solar commercial and  
19 residential structures. This would be assuming  
20 that most of the houses in San Diego are using PV.  
21 And we've done scenarios of 1 percent and 10  
22 percent and you can divide the numbers.

23 For wind there's a potential technical  
24 capacity of about 1400 megawatts and about 4000  
25 gigawatt hours in the eastern part of San Diego.

1       This does not include Baja, California, by the  
2       way. That's even -- quite a bit. And for  
3       geothermal, which is, of course, in the Valley,  
4       there's a significant potential, almost 2000  
5       megawatts which then becomes a transmission issue,  
6       as well. And then there's a huge potential for  
7       central solar in Imperial Valley.

8               So even if we don't do a very detailed  
9       technical analysis, just on the U.S. side of the  
10      border technically the resources there -- that  
11      doesn't mean they'll be developed, and it doesn't  
12      mean that there aren't barriers to it, but  
13      technically the solar, geothermal and wind  
14      resources there.

15             Now, we go across the border, as you  
16      have in your reports here, there's significant  
17      wind potential in the region between -- in the  
18      mountain region between the valley side and the  
19      coast side of Baja, California. And this is where  
20      I think the future lies. And water is a good  
21      analogy.

22             Both Tijuana and San Diego import most  
23      of its water from the Colorado River. And yet  
24      we've never been able to come to a common viaduct.  
25      Mexico doesn't trust the U.S. with its water

1 supply, and we don't trust Mexico, so we have two  
2 parallel, very expensive conduits. I would love  
3 to avoid that in the energy situation. If we  
4 could figure out a way to tap the renewable  
5 potential where it's most appropriate on either  
6 side of the border, looking at the competitive  
7 advantage of each side, land costs, labor costs,  
8 insurance, whatever, and have a organized system  
9 of transmission we could move this renewable  
10 energy back and forth to its demand in a  
11 relatively seamless way.

12 Some of the infrastructure is there.  
13 But, again, as I said, it's ad hoc. The two new  
14 power lines that were built out in the valley  
15 support two private merchant plants. They built  
16 their own power lines. That doesn't mean it  
17 serves the hole region.

18 So the renewable potential is very  
19 significant from the results of our study. And  
20 I'm hoping we'll have the actual numbers to you in  
21 time to include in the report.

22 PRESIDING MEMBER GEESMAN: I guess I  
23 might add on that subject another part of our  
24 report is emphasized, I think we've now had either  
25 two or three workshops on the difficulties of

1 integrating intermittent renewable resources such  
2 as wind into our transmission grid. And depending  
3 on what magnitude of wind resource you're  
4 suggesting, Alan, may be developable in northern  
5 Baja.

6 I would wager that that will not prove  
7 to be able to be integrated into a small and  
8 isolated grid. And that if the resources is to be  
9 commercially developed, if it is of any scale at  
10 all, the likelihood is that that development will  
11 take place more quickly and more efficiently if it  
12 is part of a larger integrated jointly managed  
13 grid.

14 DR. SWEEDLER: Absolutely. And that's  
15 why SDG&E is part of this study. And we have  
16 input indirectly from our Mexican colleagues from  
17 CFE.

18 We're very much aware of the so-called  
19 dispatchability problem, which is what you refer  
20 to. And we've developed actually hourly energy  
21 graphs which we've condensed to monthly, which is  
22 what a dispatcher needs to know. Is that stuff  
23 really out there? Can I call on it? And we  
24 looked at the load profiles and see how that's  
25 integrated.

1                   So we couldn't agree more that this  
2       patchwork isolated project popping up there,  
3       popping up there, you know, (indiscernible)  
4       something boulevard, it's something to get the  
5       market going. But unless it's integrated into a  
6       transmission strategy, a demand reduction  
7       strategy, into a whole resource plan for both CFE  
8       and SDG&E you're missing tremendous opportunities  
9       to tap this very large and indigenous resource.

10                  MR. OLSON: Okay, what I'd like to do is  
11       go to another member of the panel here. And I'm  
12       going to ask at this point Steve Taber of  
13       Princeton Development Corporation to comment on  
14       your insights about or either some of the  
15       discussion here at this point, the reports, any  
16       insights, any recommendations you have for these  
17       issues.

18                  MR. TABER: Well, first of all, thank  
19       you very much for inviting me, although I resent  
20       your putting me after Alan Sweedler; he's a tough  
21       act to follow.

22                  I wanted to make a couple comments. One  
23       is that I think the key to all of these questions  
24       is going to be transmission. We have two grids  
25       which really should be much better integrated than

1       they are. And I think when we upgrade the  
2       transmission links between the two systems we're  
3       going to accomplish some real economies at a major  
4       scale, including what the Chairman referred to a  
5       moment ago about the ability of a larger grid to  
6       integrated wind into its resource mix.

7               There are places in the world, Germany,  
8       for example, where wind provides as much as 40  
9       percent of the overall energy consumed with no  
10      reliability problems. And we can accomplish the  
11      goals, which we're all embracing here, only if we  
12      do so on a regional level.

13             Mexico's famous for having world class  
14      fossil fuel resources. And I think what many of  
15      the people in this room realize, but which most  
16      people outside this room perhaps don't, is that  
17      Mexico also has world class renewable resources  
18      including wind. Alan was referring to the wind in  
19      San Diego County, but there's also a tremendous  
20      wind resource in Baja, California, and throughout  
21      Mexico.

22             So we applaud the comments that Alan  
23      made and the thrust of this workshop in trying to  
24      find a regional solution to these issues.

25             In terms of harnessing the energies of

1 the private sector to address this, I think again  
2 transmission is going to be really critical  
3 because that's going to open up the California RPS  
4 to renewable resources in Mexico.

5 And I think among the many benefits that  
6 this will bring one of the most important ones is  
7 jobs. Again, looking at the European example,  
8 there's 100,000 Germans working their wind  
9 industry, 20,000 Danes. I don't have the  
10 statistics for California, but I'm certain there's  
11 tens of thousands of people working on independent  
12 energy in the street. And I think, you know,  
13 Baja, California will also find it will be a  
14 tremendous driver for high-paying, high-quality  
15 jobs as the utilization of their renewable energy  
16 grows. And as the energy ingenuity and resources  
17 of the private sector are brought to bear on it.

18 Thank you.

19 MR. OLSON: Okay, at this point what I'd  
20 like to do is go to Scott Anders of the San Diego  
21 Regional Energy Office, and, Scott, if you can  
22 make comments on the potential for energy  
23 efficiency improvements, maybe the combined heat  
24 and power, cogeneration, industrial cogeneration,  
25 any of your insights from your work, your studies



1 on primarily the San Diego side. But you may have  
2 insights on either Imperial or Baja, too.

3 MR. ANDERS: Thanks, Tim, and thanks,  
4 Commissioners, for inviting us to speak on your  
5 panel today.

6 With regard to energy efficiency on, I  
7 guess looking at really both sides of the border,  
8 you know, the U.S. side of the border, the energy  
9 efficiency realm, if you will, is really the  
10 purview of the CPUC and they've set very  
11 aggressive goals that you probably are familiar  
12 with.

13 In San Diego Gas and Electric territory  
14 the goals are, they actually exceed the current  
15 estimated technical potential for the next  
16 foreseeable future. So we have our work cut out  
17 for us.

18 There is still great potential out in  
19 virtually all sectors. And there's recently a  
20 process by which the local community developed  
21 energy programs to respond to those goals through  
22 the program advisory group process. And I  
23 participated in some of those. We had some other  
24 folks from my office, and have developed some  
25 programs to put in, as well.

1                   But clearly there's a significant  
2           potential on the U.S. side of the border even  
3           still, despite the successes that we've had.

4                   On combining power, we managed the  
5           (indiscernible) incentive program for this region.  
6           And we've seen an explosion in photovoltaics. We  
7           currently have about \$51 million in reservations  
8           on a waiting list for photovoltaics in 2005. When  
9           we opened the doors in 2005 for applications we  
10          were flooded with photovoltaics. And for  
11          combining power we had three.

12                  So we currently have pretty low demand  
13          right now. And, you know, the money's on the  
14          table; it's been on the table for a couple years  
15          now. And I think there are a couple reasons why  
16          combined heat and power hasn't been more widely  
17          accepted in the San Diego region.

18                  One is natural gas prices, which is a  
19          huge issue for the economics of combined heat and  
20          power. Another one is more of a technical issue,  
21          and that is San Diego doesn't have a great, they  
22          don't have a great thermal need. We have a very  
23          temperate climate here and even though you can use  
24          the waste heat through absorption chillers, it's  
25          possible, we really haven't seen a ton of those

1 projects, and some of our engineers don't think  
2 that that's the best way to go with combined heat  
3 and power.

4 So I think those issues are the exact  
5 same issues that would happen south of the border  
6 for combined heat and power. Perhaps there's some  
7 need for process steam in Mexico in the  
8 manufacturing sector, but the temperate climate  
9 exists and the thermal need is basically the same.

10 The other potential issue, which was  
11 mentioned in the whitepaper, was an infrastructure  
12 issue in Mexico and the availability of natural  
13 gas. although the report did say that most of the  
14 industrial sector does have access to some natural  
15 gas. It's unclear whether it's more widespread  
16 than it is. I think that would be obviously a  
17 huge factor in determining the potential for  
18 combined heat and power in Mexico.

19 In terms of energy efficiency on the  
20 Mexican side of the border, you know, the Western  
21 Governors Association data, which was presented  
22 earlier, suggests that there's a huge potential  
23 for savings. And we are participating with  
24 (indiscernible), the CEC and our Mexican  
25 counterparts to actually go down and try to find

1       some of that and do some audits and try to get  
2       some projects in the ground.

3               So we'll give you a report back soon of  
4       what we find, because we're actually going to be  
5       going down to try to get some projects in the  
6       ground.

7               DR. SWEEDLER: Let me add one comment to  
8       Scott's very good summary. What many people don't  
9       recognize what's happening in this binational  
10      region is that the Mexican side of -- if you're  
11      looking at it as a region, particularly in the  
12      global economy, the Mexican side of the border is  
13      becoming the industrial sector, if you like.

14              And that includes Mexicali, where there  
15      are very significant production facilities. These  
16      are manquilas just putting things together. These  
17      are truck plants, and major facilities.

18              The U.S. side is becoming more of the  
19      design, engineering process high tech component,  
20      if you like. But if you put it together you have  
21      a very compelling competitive unit in the global  
22      system because you have these two entities that  
23      could work together more smoothly, but certainly  
24      are working together.

25              And what seems to be emerging is that

1       there will be, in the future, a greater need for  
2       things like cogeneration and combined heat and  
3       power as this industrial sector begins to pick up,  
4       and to remain competitive in this economy, to keep  
5       energy costs low.

6               So we may not see that in San Diego, and  
7       Tijuana and Mexicali are changing from this sort  
8       of assembly to a full-fledged industrial arena,  
9       which hopefully will create well-paying jobs, as  
10      well, and raise the quality of life for everyone  
11      in the region.

12             MR. ANDERS: Just a few other  
13      observations on the energy efficiency side on the  
14      Mexican side of the border. As I mentioned the  
15      WGA report shows a huge potential.

16             And I was interested in some of the  
17      reporting on the programs available in Mexico, for  
18      example the FIDE program for small, medium  
19      commercial customers. It suggested that there was  
20      a large budget. We heard this morning it's not  
21      clear that that's actually there, or what the  
22      funding would be going forward.

23             But one of the issues it seems like  
24      there was a manpower issue or an outreach  
25      marketing issue. It seems like that's something

1       that we could do in a collaboration, we meaning  
2       the Commission or San Diego region, in  
3       collaboration with some folks in Mexico to try to  
4       leverage those resources, whatever resources are  
5       available.

6                So that's -- I think that there could be  
7       some creative work done to try to leverage  
8       existing resources in Mexico.

9                One final thought. I think we all  
10       intuitively believe that cogen and energy  
11       efficiency and demand reduction in Mexico would  
12       actually help California and help this complex  
13       interconnected grid we have.

14               I would suggest that that might be a  
15       nice topic for a study to be done by the  
16       Commission, to take a look at, you know, what are  
17       the actual benefits to the grid, to congestion  
18       running through that system on the California  
19       side. And then that may help justify Alan's  
20       request for spending some money, some of either  
21       our public goods dollars or other dollars, on the  
22       Mexican side of the border, knowing clearer what  
23       the effects are on the California side of the  
24       border. So I would strongly urge the Commission  
25       to consider that type of study.

1                   PRESIDING MEMBER GEESMAN: I think that  
2           is a very good idea. I will tell you we are data  
3           starved in terms of south of the border  
4           information on loads or load profiles. And I  
5           think that's probably the type of work that can  
6           best be done jointly or with the assurance that we  
7           do have a Mexican partner that can gather the data  
8           that would drive such a study.

9                   DR. SWEEDLER: That's a critical comment  
10          because you won't get the data unless you do it in  
11          a cooperative way. But, the data is there. CFE  
12          has fantastic data. But you don't just to go them  
13          and say could you give us the data. It just  
14          doesn't work like that. I'm not sure we would do  
15          that, either.

16                   But they're willing partners. And  
17          they're extremely competent with very very good  
18          analytical capabilities. So a joint study of that  
19          nature would be quite useful.

20                   PRESIDING MEMBER GEESMAN: We'll let the  
21          word go out to all of you study entrepreneurs in  
22          the audience. That's a topic that we are  
23          interested in pursuing.

24                   MR. OLSON: I guess I'd like to have one  
25          clarification from your work. I don't know if

1       this is Al Sweedler or Scott Anders. To what  
2       extent have you conducted a similar study, or do  
3       you think it's even necessary, like the WGA study  
4       for the California side?

5               And also in your response, if you've  
6       done any of that work, I don't know if that's in  
7       your San Diego regional energy plan, or you've  
8       gone down to this level. As Nick Puga pointed  
9       out, some of the customer class use and the nature  
10      of where electricity is used in various sectors.  
11      Are you a responsible party for, for example,  
12      helping SDG&E comply with the California Public  
13      Utilities' demand side management requirements?

14             MR. ANDERS: I'll take them in reverse  
15      order. We're working with SDG&E on various energy  
16      efficiency and demand response programs. You  
17      know, the accountability lies with SDG&E to reach  
18      the CPUC goals. So I'm not exactly sure what  
19      you're driving at on that question.

20             But with respect to the sectoral  
21      analysis of San Diego, SDG&E had an analysis done  
22      a couple years ago. There's a statewide study  
23      done, I believe it was by Kemas Energy, I believe  
24      it was; and there was a statewide energy  
25      efficiency technical potential study, or an energy



1 efficiency potential study.

2 I believe SDG&E did a follow-on study to  
3 look at SDG&E's territory separately, because, you  
4 know, while we tend to be 8 to 10 percent of the  
5 state typically in energy terms, it's hard to  
6 extrapolate from a statewide study because SDG&E's  
7 territory is very different climatewise and the  
8 way the customer base is.

9 So, I believe that data's there. I  
10 believe SDG&E has that study. And that was used  
11 to inform the program advisory group process that  
12 I mentioned earlier. And, you know, we got pretty  
13 good data on who consumes what. And I think we  
14 pretty much know where the customers are.

15 So I think the information is there for  
16 that kind of assessment.

17 MR. OLSON: There again, just  
18 reiterating Commissioner Geesman's comment, I  
19 think that would be very valuable for us to work  
20 together to provide an overall assessment of where  
21 these options are.

22 Okay, as this point what I'd like to do  
23 is call on Michael Brown of Brown and Vince  
24 Associates to make your comments and maybe just  
25 describe where you're coming from in terms of your

1 views.

2 MR. BROWN: Well, thank you, Tim, and  
3 Commissioners. It's really a privilege to speak  
4 to you today.

5 I'd like to start out talking about the  
6 WGA report because our firm was -- we were one of  
7 the study entrepreneurs and our firm had the  
8 privilege of doing that particular study.

9 First of all, I want you to know that  
10 the estimates that were in there, the greater than  
11 25 percent ability to reduce energy usage in the  
12 regions that we looked at is very real. It was  
13 partly an academic study, but most of that data  
14 was based on several dozen energy audits that  
15 we've already completed in the border region.

16 Over 50 percent of the companies, and  
17 these included hospitals, administration  
18 buildings, industry, both large and small, and  
19 hotels, over 50 percent of the entities that we  
20 worked with actually implemented some or all of  
21 our recommendations.

22 So while the report, itself, looks like  
23 more of a theoretical or academic report, and then  
24 it's been distilled down to, in your report, it is  
25 based on very solid actual our engineers going

1 through the basements and lighting systems of a  
2 very large representative sample, both on the  
3 Mexican side and the U.S. side.

4 I think what we learned there the most  
5 was that it's an outreach issue and a financing  
6 issue primarily. On the outreach side what we  
7 found was that virtually every institution or  
8 industry that we contacted was very interested in  
9 the energy audit work; they're receptive. And as  
10 I mentioned, over half of them implemented at  
11 least something, and some of them everything.

12 So a lot of my remarks, and I want to  
13 wind up with some recommendations, really focus on  
14 other thoughts you've heard here this morning  
15 about outreach. A tremendous opportunity for  
16 California firms like ours and others in this room  
17 to implement projects if we have the ability to  
18 spend the time on the ground.

19 Also with respect to the WGA study,  
20 there were some pretty severe funding limitations  
21 to that study. And you mentioned your term was  
22 data starved. There is a tremendous amount of  
23 data available. I have lots of it in my office.

24 We were not given, through WGA, the  
25 financial resources to translate it all, first of

1 all. And assimilate it and make it available. So  
2 I think there is a fairly straightforward  
3 potential for continuing that work, using this as  
4 the foundation and cornerstone, and answering the  
5 questions and supplying you with the information  
6 that you need and want.

7 So, outreach, number one; financing,  
8 number two. Most of these projects are very small  
9 in terms of attractiveness to a third-party  
10 investor. They may be \$100,000, half a million  
11 dollars, probably in that range. They're short  
12 paybacks, a year and a half, two, three years.

13 But the ability to mobilize the  
14 expertise from California or from the U.S. for a  
15 \$100,000 project is really a challenge.

16 We are involved in a program with the  
17 World Bank and North American Development Bank,  
18 and I would encourage the Energy Commission to get  
19 involved in this project, looking at packaging  
20 these smaller projects into an investment-sized  
21 bundle. Spreading the risks by doing that, and  
22 making it more financially feasible to provide  
23 these small increments of money for actual  
24 projects.

25 The second area I want to talk about is

1 the renewable energies. Those are my comments on  
2 energy efficiency.

3 Fortunately we were involved in the  
4 first, and I think probably the only, major  
5 renewable energy project that is actually in  
6 operation in Mexico. And this is a 7 megawatt  
7 power plant using gas from the landfill in  
8 Monterrey.

9 And we're currently working on a couple  
10 of wind projects, a number of other landfill gas  
11 projects, and some coal bed methane.

12 The Monterrey project was really an  
13 important project because it established a  
14 structure that was financeable and practical for  
15 this type of project. Under Mexican rules it's  
16 very difficult to make a independent power project  
17 financially feasible.

18 However, the project and the way we  
19 structured the Monterrey project was as a self-  
20 use; and the power is being used by the City of  
21 Monterrey, the light rail system and the water and  
22 sewage. And we kind of opened the door and  
23 established, with assistance from the World Bank  
24 and U.S. Trade Development Agency, this model,  
25 which is now being copied in all our wind

1 projects, other landfill gas projects, as well.

2 I think the two real lessons we learned  
3 there, number one is that the assistance from the  
4 Energy Commission, North American Development  
5 Bank, USTDA is essential in making these projects  
6 go. There needs to be a financial kickstart, if  
7 you will, or jumpstart to allow businesses who  
8 have the expertise that we have, and others, over  
9 the last couple decades developed here in  
10 California to have the resources and the  
11 credibility that comes from saying California  
12 Energy Commission is our partner in this, to get  
13 these projects off the ground.

14 A couple of difficulties in the  
15 structuring of renewable energy. One of them is  
16 the Mexican government's definition of renewable  
17 energy. It does not include such things as  
18 landfill gas. And so there are many benefits or  
19 methodologies that have helped enhance the ability  
20 to implement a renewable project in Mexico such as  
21 net metering and the ability to wheel at  
22 reasonable tariffs.

23 But unfortunately some of the -- what we  
24 consider on this side of the border renewable  
25 energies, are not offered those same benefits. So

1       that's one area of concern.

2               Another is in the whole alternative gas  
3       resources, coal bed, methane, methane from  
4       landfill. Under Mexican law gas resources are  
5       owned by the state or the federal government. And  
6       so, for example, in a coal bed project, which is a  
7       very important project for miner safety, emission  
8       reduction, as well as very financially attractive,  
9       the coal miner is responsible for managing the  
10      gas, but they don't own it. And so no investor is  
11      willing to put down hard cash to build a power  
12      generating system that will have all of these  
13      benefits, but at anytime the state can say, well,  
14      sorry, that's our gas, now we'll take it. So  
15      that's a second area that is of concern.

16             And then the third area of challenge, I  
17      would say, is really the interface with CFE on  
18      renewable energy projects. And making the laws,  
19      regulations, tariffs something that are consistent  
20      and that investors are willing to trust.

21             So a couple of recommendations, Tim, for  
22      your report, and for the Commissioners. The first  
23      one is outreach. That what we found is that the  
24      expertise is here in California to make both  
25      energy efficiency and renewable energy projects

1       happen. We've made them happen. Colleagues have  
2       also made them happen.

3               But the time and attention has to be  
4       paid to the potential projects in order for those  
5       to happen. Just hoping and wishing and doing very  
6       global studies is not going to make the potential  
7       of a 26 percent reduction in energy usage and the  
8       thousands of megawatts that we've heard kicked  
9       around actually happen.

10              Those outreach resources have to be done  
11       at least in two prongs. One is to the project,  
12       itself, whether that's an industrial concern, a  
13       hospital, on energy efficiency or a landfill owner  
14       or a wind resource.

15              But the other point, and I think it's  
16       often overlooked, is that the Mexican ESCO energy  
17       service company infrastructure really could use a  
18       lot of help from Californians. We've been doing  
19       this a long time. They're fairly new, and we've  
20       found that in general they're very weak and can  
21       benefit greatly from some kind of partnership  
22       program where we don't come in and take over the  
23       business for them, but we help them, nurture them  
24       and incubate them. So that was recommendation  
25       number one.



1           The second one is funding. I really  
2       applaud your international export program, the  
3       program that Tim runs. It's been of great help to  
4       our firm and our colleagues. And it's been  
5       helpful in two ways.

6           Number one is the money. Obviously it's  
7       expensive for us to prospect for projects and  
8       development down in Mexico. But I want to really  
9       highlight the importance of the acknowledgement of  
10      the California Energy Commission when we go to  
11      market. When we say that the California Energy  
12      Commission, North American Development Bank, as  
13      well, and we've done some cooperative things, is  
14      our partner. They have endorsed us in a way, and  
15      are willing to put some money. It opens doors and  
16      gives us a credibility that is immeasurable in  
17      dollars.

18           Don't get me wrong. We definitely  
19      appreciate the financial portion of it, but the  
20      acknowledgement is extremely important. So I  
21      would recommend that you continue, and if possible  
22      expand, the international export program,  
23      particularly as you have this past time, focusing  
24      on Mexico and the border region.

25           And then the third area is to the extent

1       you can to work with the Mexican government to  
2       resolve some of the issues that I've mentioned.  
3       Particularly the definition of renewables, and to  
4       the extent possible, to make the various rules and  
5       regulations having to do with net metering,  
6       interconnection, tariffs, et cetera, unified with  
7       California would be ideal. At least consistent  
8       with California's standards.

9               Because the financiers who back us, and  
10       who will make these projects a reality, are very  
11       comfortable with the way business is done in  
12       California. They're not comfortable with the way  
13       business is beginning to be done. It's too new.  
14       And to the extent that we can explain to them that  
15       the rules are the same, or at least very similar,  
16       to California rules, where they've made  
17       investments and had a return on that investment,  
18       that would be very helpful.

19              Did that cover what you wanted me to  
20       talk about, Tim?

21              PRESIDING MEMBER GEESMAN: Did I  
22       understand you to say that on the Monterrey  
23       landfill project you ended up pledging water and  
24       sewer revenues to repayment of debt?

25              MR. BROWN: No. The obligation was

1        simply a take-and-pay --

2                PRESIDING MEMBER GEESMAN:    Okay.

3                MR. BROWN:    -- contract from those three  
4        agencies.    The difference was rather than sell it  
5        as independent power for 3 cents or so, it was  
6        offsetting street lighting power, for example,  
7        which at the time was about 10 cents.    It's now up  
8        to about 12 or 13 cents.

9                PRESIDING MEMBER GEESMAN:    Thank you.

10               MR. OLSON:    Michael, do you have any  
11        recommendation on federal agencies in Mexico or  
12        the United States that could enhance programs or  
13        take actions similar to what you're suggesting for  
14        California?

15               MR. BROWN:    I think to the extent that  
16        the California Energy Commission could partner  
17        with other agencies, I'm thinking of USEPA, which  
18        is where the funding for the WGA study, that was  
19        actually EPA money under an air pollution program,  
20        went to WGA; the U.S. Trade and Development Agency  
21        also funds; they have funded, in part, the  
22        Monterrey, Mexico project.

23               I think that probably those two, EPA and  
24        USTDA on the U.S. side, as well as the North  
25        American Development Bank for the border region

1 would be three really good partners to help you  
2 leverage your resources financially, expertise --  
3 and expertise, as well, in making your dollars go  
4 further. The talk about spending some of public  
5 goods money, our public goods money for that. And  
6 I think you could leverage that money really far  
7 with these kinds of partnerships.

8 MR. OLSON: Okay, I'd like to go to the  
9 next speaker, but before we go there if there's  
10 anybody here who's interested in a comment on this  
11 panel, this topic area, I have some blue cards  
12 here. I'd like you to fill them out and give them  
13 back to me, and we'll then take them in the order  
14 that we receive them.

15 The next speaker is Scott Stormet with  
16 the North American Development Bank. It's a very  
17 unique organization that works on both sides of  
18 the border. Scott, could you give us your  
19 insights about the questions we've raised, any of  
20 the recommendations you might have regarding our  
21 reports, or findings that we've come up with to  
22 this point?

23 MR. STORMET: Sure. Thank you very  
24 much, Tim, for the opportunity; and thank you to  
25 the Commission for inviting us to be a part of

1       this. We're very appreciative also, I'd like to  
2       pass along on behalf of the management of the  
3       North American Development Bank a very grateful  
4       thank you, for the assistance that you all have  
5       provided through your international programs with  
6       the funds that you provided to California  
7       consultants, which we've partnered with BVA and  
8       brought them in as a consultant; that they helped  
9       us on the early stage, due diligence, on two wind  
10      projects currently.

11               And half of those costs were shared by  
12      the California Energy Commission in  
13      (indiscernible) Leon and (indiscernible), a wind  
14      energy project in the early stages, as well as  
15      energy efficiency related projects and audits,  
16      preliminary energy audits, in the Monterrey  
17      industrial/commercial sector, which are now  
18      leading to our first energy efficiency project  
19      with a hospital, with the Monterrey Tech private  
20      university hospital there in a Mexican-based ESCO  
21      that's taking the data that was developed and  
22      analyzed by Brown Vince Associates, which was paid  
23      for by the CEC.

24               So we're very appreciative. So we're  
25      hoping to have our first financing in the energy

1 efficiency arena in the next two to three months.

2 Also, I'd like to commend the staff,  
3 because I read the reports. I was afraid I would  
4 either be too sleepy on the flight out last night,  
5 or I might have one too many beverages. But  
6 luckily neither one happened, and I was able to  
7 finish all four in time.

8 But they're very well put together. And  
9 I think that they're very informative. They're  
10 going to be very helpful to us in our border  
11 outreach in marketing strategy for this region.

12 On page 11 of the Economic Development  
13 Opportunities and Challenges, the energy  
14 efficiency implementation challenges that were  
15 listed, that were identified in the WGA report,  
16 which was augmented and brought into this report,  
17 we have been working, very new in the arena of  
18 energy financing. We're still planning our first  
19 financings.

20 But we have done a lot of due diligence  
21 in the past three years in Mexico trying to  
22 understand the market. Why energy efficiency is  
23 working; why isn't it working. What is working;  
24 what were the reasons it worked.

25 And these implementation challenges are

1 a big part of that reason. We're trying to  
2 provide, our role is in the -- not in the outreach  
3 arena. There's organizations that work to do  
4 this. There's programs such as the Western  
5 Governors Association, as well as through efforts  
6 with CONAE, the Comision Nacional para el Ahorro  
7 de Energia, which is the national energy  
8 conservation commission, which I highly recommend  
9 that the CEC consider looking at trying to develop  
10 a formal partnership with.

11 They are the entity that is responsible  
12 for promotion of clean energy and energy  
13 efficiency in more a outreach, in education with  
14 industry and with the public sector. FIDE has its  
15 limitations because it only focuses on electrical  
16 usage; it does not focus on all sources of energy,  
17 which is a problem. Because you're looking at  
18 gas, propane, water usage and that's all part of a  
19 holistic energy audit.

20 So we recommend that you look at  
21 possibly partnering with them. We are working  
22 with them directly right now on a collaborative,  
23 cooperative agreement, much as we're working with  
24 the California Energy Commission on a cooperative  
25 agreement, where we can leverage the skill sets

1 and the expertise and the functions that you all  
2 are tasked with already, as agencies, to benefit  
3 our ability, which is provide affordable debt  
4 financing.

5 We're here to finance projects, to get  
6 things from the macro study down to actual project  
7 identification. And move forward and basically  
8 turn dirt and move projects forward to the  
9 implementation stage.

10 Energy efficiency is really focusing a  
11 great deal of energy, pardon the pun, energy at  
12 this moment, looking at the maquiladora industry;  
13 trying to identify is there a market here that we  
14 can utilize.

15 We hear all the time clamoring about we  
16 want energy efficiency, we don't have financing.  
17 But we haven't been able to nail the coffin shut  
18 yet on a deal. And so we're working with the San  
19 Diego Regional Energy Office, with the Consul  
20 (indiscernible) de Tijuana, and also with some  
21 funding that we'll hopefully be provided by the  
22 CEC through the international program, to promote  
23 energy audits that will be screened and targeted  
24 to specific industry or partners, whether they're  
25 domestic industry or maquiladoras. It will depend



1 on the energy profile and the type of facility.

2 That -- we just approved the funding for  
3 that last week, and that's a pilot initiative to  
4 see if we can't spur the market a little bit here  
5 in Tijuana, Mexicali and Tecate.

6 So, that will -- depending on the  
7 outcome of that we hopefully will have something  
8 very interesting to report to you, either that  
9 type of a program makes sense, as Scott was  
10 mentioning. That, you know, funds, additional  
11 funds from the State of California might be --  
12 have ripple benefits if you invest that into a  
13 limited amount in northern Baja.

14 And if we don't, then you know that that  
15 \$50,000 we put in that study, okay, we proved our  
16 hypothesis -- or we proved or disproved our  
17 hypothesis, which is -- our hypothesis is that  
18 there is a market there, but why isn't it  
19 developing. We know ESCOs are weak in Mexico;  
20 there's very few of them. There's needed  
21 capacity, limited capital, there's very limited  
22 debt findings and its affordable. There's lots of  
23 great equity, but there's not enough debt  
24 financing. And that's what we're trying to play a  
25 role and be a catalyst there.

1                   What we're doing with the World Bank, as  
2           Mike mentioned, is to develop integrated financing  
3           models to bundle groups of smaller energy  
4           efficiency projects, say 100, 200, 300 thousand  
5           dollars in total cost.

6                   Because for us to enter into one  
7           transaction we would need to see a minimum project  
8           size of a million dollars. It just doesn't make  
9           sense for us to get involved in 100, 200, 300  
10          thousand dollar financings, because we can only  
11          provide 50 percent of the cost.

12                  One deal, I can tell you right now, is  
13          going to cost at least \$50,000 in legal costs for  
14          us to process. And for a \$500,000 loan you got to  
15          pay \$50,000 in legal costs. That's expensive.  
16          And so that's a struggle that we're struggling  
17          with. So we're trying to figure out with the  
18          World Bank, they come in and provide a \$400,000  
19          grant to work with us in Monterrey to identify a  
20          number of industrial players. Smaller size  
21          projects, small and medium sized entities, not the  
22          large corporate, multinational types. Although  
23          they will finance that. We can do that on a one-  
24          on-one basis.

25                  But put them together, four or five

1 projects. Bring in one ESCO to work with them to  
2 be the manager of a special purpose company. Then  
3 underneath that, the individual projects can be  
4 implemented by other ESCOs or other energy service  
5 groups. And we would provide the financing to one  
6 entity, but there would be four or five smaller  
7 projects under that. One loan; one financing.  
8 But there are four or five projects. That's the  
9 idea to move towards in Mexico.

10 We're still behind the eight ball right  
11 now to see if that's going to work or not. We  
12 think it can. It's been done on the equity side  
13 of the equation, but it hasn't been done on the  
14 debt financing side.

15 One thing that I would recommend in the  
16 energy efficiency arena, I think that, as I  
17 mentioned, CONAE is a very good agency to  
18 potentially work with. There's a really really  
19 strong director general. He's the executive  
20 director of CONAE. His name is Carlos  
21 (indiscernible). He's a real expert and he's got  
22 a bully pulpit in Mexico for energy efficiency.  
23 He has a strong interest in northern Baja,  
24 California.

25 In fact, they're working at the state

1 government of Baja, California to set up a state  
2 energy commission which would be an independent  
3 energy commission at the state level. Granted,  
4 the responsibilities of decisionmaking and  
5 financing still reside at the federal level, but  
6 it's a step in evolving the policymaking and  
7 having some voice in how energy policy is crafted  
8 in Mexico.

9 And they've set up energy commission in  
10 (indiscernible), (indiscernible) Leon and I'm  
11 trying to think if they set them up in  
12 (indiscernible) yet, but Baja is on the list; they  
13 should be set up soon.

14 CONAE has an interest in trying to  
15 identify sector-specific maquiladora industry  
16 within the domestic industrial sector. What are  
17 the best areas that may be targeted for energy  
18 efficiency, not only outreach and education, but  
19 for moving to the next phase of audits and  
20 implementation and financing.

21 They could benefit from California funds  
22 potentially in some way in helping target a shared  
23 interest in identifying the sectors. California  
24 has such an expertise in your energy  
25 consultancies, as well as the Energy Commission,

1       that that information could be very valuable in  
2       helping them craft that potentially.

3               This is me speaking, not them speaking  
4       through me. I'm seeing that as an opportunity  
5       where there is a need there. We're trying to do  
6       market analysis and market development, as well.  
7       But we have the whole border region that we work  
8       on, so it's hard for us to always target. That  
9       may be an opportunity potentially for specific  
10      opportunity for you to work with them.

11             Real briefly I just wanted to mention,  
12      because as I read the whole set of reports, we're  
13      an environmental bank; we finance environmental  
14      infrastructure for water, wastewater, solid waste  
15      on the public arena side, and private concessions,  
16      all the way over to clean energy, energy  
17      efficiency, industrial hazardous waste, water  
18      conservation, clean transportation systems,  
19      pollution prevention with clean technology, clean  
20      production technologies with industry.

21             We can finance basically anything if it  
22      has an emission or a waste source coming out of  
23      it. If you need to clean it up, get rid of it, or  
24      whatever, it's probably going to be eligible for  
25      our financing. And we have a very strong interest

1 in doing that.

2 I tried to identify, as I read through  
3 the environmental opportunities and challenges  
4 document, opportunities where we could potentially  
5 -- I wanted to make you formally aware of where we  
6 could provide financing for projects on both sides  
7 of the border.

8 We can work 300 kilometers south of the  
9 Mexican border, and 100 kilometers north. Just  
10 for your reference point.

11 Obviously energy efficiency projects in  
12 the public and private sector are areas that we  
13 would be very interested in working with the  
14 Commission or with individual companies.

15 Cogeneration in industrial projects,  
16 especially when you're looking at fuel switching,  
17 if there's any kind of moving to natural gas. I  
18 realize that's a challenge with the pricing and  
19 the cost issues. But that is something that we  
20 could look at.

21 Renewable energy projects of any type or  
22 sort. We're working with the City of San Diego  
23 right now on the early on some clean energy  
24 evaluations on two small landfill gas projects.  
25 Looking at seeing what the feasibility of how

1       these could be developed, what role the City would  
2       play. And what potential financing opportunity  
3       might be for us.

4               We're also going to be working with some  
5       entities on some biomass energy projects in the  
6       Imperial Valley dealing with cattle manure from  
7       dairies and wasteflows from a cheese factory  
8       there. Those are early stages, but we're going to  
9       be moving forward on a fairly large technical  
10      assistance package.

11             Also looking at CNG pipelines to  
12      industrial customers. If you're trying to get off  
13      the main trunkline into a distribution network  
14      into your industrial park. Those are things that  
15      we can look at financing. And I don't think  
16      everybody realized that, that's what we can do.  
17      But we could consider those types of projects  
18      potentially, as long as there's a clean energy  
19      component to it.

20             Pollution controls on power generation  
21      facilities, such as scrubbers, industrial  
22      pretreatment systems or process water treatment.  
23      So you have to have an RO system on the front end  
24      for certain types of processes. We could look at  
25      that.

1           Transmission lines that are needed for  
2       dispatching renewable energy sources. There's a  
3       mention of the Salton Sea geothermal project and  
4       is there enough transmission capacity to get it  
5       back across into San Diego.

6           If there was obviously a clear argument  
7       being made that transmission lines were something  
8       that were needed, and although it's going to be  
9       multiple uses, multiple sources of generation  
10      going through that transmission, if the reason,  
11      the main primary reason is a renewable energy  
12      source, we could look at those transmission lines.  
13      And we could look at binational transmission, as  
14      well.

15          Clean fuels for vehicle use and for  
16      heavy duty diesel vehicles is something we're  
17      exploring.

18          We're also working on a couple of  
19      projects, a system facility in facilitating cross-  
20      border emission credit trading, such as under the  
21      WREGIS scheme. That has been proposed looking at  
22      northern Baja as part of that grid network.

23          We are working on a 6 megawatt wind  
24      project with the State of Baja, California, a  
25      private developer in Mexico right now.



1           There's a lot of challenges, but I  
2       encourage them that they should look at, you know,  
3       we're going to look at carbon credits, look at  
4       what your potential REC sales market value might  
5       be. And if you could develop an agreement with  
6       some entity in California.

7           That also is another thing that we're  
8       struggling with, is that we have American  
9       development companies that want to do wind  
10      projects along the Gulf Coast of Texas, and ship  
11      the energy back into Texas. But they're  
12      struggling with they can't get the PTC, the  
13      production tax credit, because it's authorized  
14      under the IRS as domestic. So that's an issue.

15           But one thing that goes back to Mr.  
16      Sweedler's point, that this is a region that has  
17      environmental and natural resource commonalities  
18      that don't respect necessarily IRS tax codes. And  
19      so it would be interesting for some flexibility in  
20      RPSs as well as PTCs. That improves the  
21      investment climate for us.

22           And the final point, and I apologize for  
23      going on so long, border crossings for expedited  
24      traffic. The issue in Imperial Valley, I know  
25      that everybody -- and I won't say this too loudly,

1 but I know the issue is there's a lot of  
2 complaints about Semptra and InterGen and the  
3 plants there. They obviously are, in the big  
4 picture they're a component of any pollution air  
5 quality issue. But the major sources are mobile,  
6 vehicle traffic.

7 And that's the issue. And for us not to  
8 acknowledge that, and to figure out strategies to  
9 improve that, we're missing the target, I think.  
10 And we see that and we advocate that very clearly  
11 at the Bank.

12 And dedicated commuting lanes. The FAST  
13 program, which is the Free And Safe Trade program,  
14 which is under the U.S. Homeland Security  
15 Department, we're working on a project in Nogales,  
16 Arizona, Nogales, Sonora which would be  
17 implementing a expedited truck traffic lane for  
18 prescreened companies. They pay a fee and they're  
19 screened for security risk, safety records in  
20 truck driving and things of that nature.

21 And they're on a weighing motion; and  
22 they also have, you know, the x-ray technology so  
23 they can look at the truck as it goes through.  
24 And they're even thinking about employing  
25 emissions monitoring in these systems. Those

1 types of systems would be very very interesting,  
2 so we're helping to provide financing for a  
3 project there.

4 As well as another area that  
5 (indiscernible) rail lines for commuter use and/or  
6 commercial traffic. We've been talking to a group  
7 possibly about doing something from between  
8 Tijuana and Tecate over into the Imperial Valley,  
9 the rail line that goes there. About trying to  
10 help them increase their efficiencies by putting  
11 in proper safety costs things in Tijuana/Tecate,  
12 because they're having to stop at every rail  
13 crossing and flag people down, get out. They have  
14 to stop the train. I mean it's very inefficient.

15 Just by putting in several million  
16 dollars worth of train cost things to block off  
17 streets properly, it will expedite quicker  
18 traffic. Because these cars are sitting there  
19 belching out emissions, as well as the diesel  
20 locomotive is obviously not in its most efficient  
21 mode, which is in running mode.

22 So these are just contributing sources.  
23 It's an example; it's harder to model exactly what  
24 that impact is, but there's no doubt if you've  
25 been there and you've sat in that car line you

1 know it stinks. So these are examples of projects  
2 that we could look at.

3 And I wanted to mention transportation  
4 only because I may not be here this afternoon when  
5 you all talk about these things. But in general  
6 terms we appreciate the opportunity to be here.  
7 And I think the recommendations -- in general  
8 terms, what we saw in the reports look very much  
9 in line with what our experiences in working with  
10 renewable energy and energy efficiency in Mexico.

11 We're not as much of an expert on  
12 gaslines and gasflows and the interconnects as far  
13 as transmission capacity. That's not really our  
14 focal point. But I think it's a set of well  
15 crafted documents and we appreciate the  
16 opportunity to provide some comment.

17 PRESIDING MEMBER GEESMAN: Let me ask  
18 you, are you a direct lender or is your preferred  
19 instrument a financial guarantee?

20 MR. STORMET: We can do both. We can  
21 provide direct debt financing up to 50 percent of  
22 the total project cost, as well as we can provide  
23 partial guarantees up to 50 percent.

24 We can also provide equity in a limited  
25 role, probably not more than 20 percent of a total

1 project. We have not utilized our equity lending  
2 tools. But preference is direct debt financing  
3 and -- but we're willing to get involved.

4 What our role is is to be the subway  
5 between the financial needs of a project and the  
6 market opportunity. And if we can help bring  
7 other private investors to the table, and our  
8 capital is seen as a guarantee mechanism or  
9 something that strengthens the potential interest  
10 in the project, as well as the predictability of  
11 the investment, that's our role.

12 Our role is not necessarily to beat out  
13 Bank of America. That's not our role. Our role  
14 is to find out what the niche is.

15 Right now, on energy efficiency in  
16 Mexico direct debt financing is needed. The other  
17 part that's needed, though, is that we need the  
18 financial guarantees to back up some of these  
19 initial deals because the problem with the energy  
20 efficiency is if there's not -- it's not a mature  
21 market like it is in the U.S., where you actually  
22 have, you know, a second-hand market for the  
23 contracts, where you're selling it to other banks,  
24 like Johnson controls or whatever.

25 So that's, so when you're in a more

1       immature market in a developing country setting,  
2       that is a challenge.

3               But to answer your question, direct debt  
4       financing and partial guarantees are definitely  
5       our preference.

6               PRESIDING MEMBER GEESMAN: And will you  
7       subordinate your interest to another lender?

8               MR. STORMET: Potentially, depending on  
9       the type of deal. I don't think -- that's not our  
10      preference, but we have a board of directors  
11      that's made up of three U.S. federal agencies and  
12      three Mexican agencies. And trying to negotiate  
13      subordinating ourselves is like, you know, it's  
14      like saying, oh, the U.S. Government is doing  
15      what?

16              So we get that question, but it is a  
17      role we could play.

18              PRESIDING MEMBER GEESMAN: Thank you.

19              COMMISSIONER BOYD: Scott, good to see  
20      you again; and it's particularly good to see you  
21      here. We've developed a good relationship in the  
22      energy worktable board of governors. And as you  
23      indicated, there's been a lot of success, a lot of  
24      hands across the border with most states that  
25      don't border California. But it's good to have

1       you here today talking about California, Baja,  
2       California.

3               And I was encouraged to hear of your  
4       reachout on efficiency project here to see if you  
5       can get some traction.  Because while we have  
6       biased our international program towards Mexico  
7       purposely in the last couple of years, it would be  
8       particularly nice if we could emphasize Baja and  
9       State of California relationship.  So, good luck  
10      on that subject.

11             I'm also encouraged that you did mention  
12      the transportation arena and opportunities there.  
13      We've had some very interesting discussions in the  
14      last couple years.  The board of governors have  
15      been desperate to get some of that moved over here  
16      to the California/Baja border.

17             So it looks like it takes time and  
18      patience, but I'm glad to see it happening.  
19      That's all I wanted to say.

20             PRESIDING MEMBER GEESMAN:  Why don't we  
21      go to the blue cards.  First one I've got is Joe  
22      Maruca, County Supervisor from Imperial County.

23             DR. MARUCA:  Thank you very much.  I  
24      would agree with the gentleman over here.  We do  
25      have some air quality problems.  Not specifically

1       totally related to the InterGen and Semptra plant,  
2       but they are contributors to an already existing  
3       bad problem. And that's why I'm here.

4               A few years ago in my first year in  
5       office, I'm in my second term, I had this rather  
6       large environmental impact study sitting on my  
7       desk, which I was reluctant to read because, you  
8       know, you get so much mail in those offices you  
9       just have to pick and choose.

10              And so about four months later I picked  
11       this thing up, the environmental impact study of  
12       the Northern Baja pipeline. I called our planning  
13       director; I says, what's this. He says, oh,  
14       they're building a 30-inch pipeline to the County.  
15       They are? That was our notification. From there  
16       it was downhill.

17              They built the two plants, Rosita and  
18       InterGen plants, within a stone's throw of the  
19       border. Most of that power came back across the  
20       border in some way to San Diego and other places.

21              The only reason they put scrubbers on  
22       those is because Dianne Feinstein and other  
23       federal legislators were going to pass legislation  
24       to tax that power coming into the country because  
25       it was coming in from dirty sources.



1           Quickly they came up -- they didn't come  
2       up quickly, as a matter of fact the last one just  
3       went on InterGen a month ago. It was a fiasco.

4           We still have no way to monitor those.  
5       As you know, you're all more technical than I am,  
6       I'm a PhD in English, so I don't know when I say  
7       kilowatts, kilogens, I don't know. So you'll have  
8       to forgive me. Swift I know; electricity I don't.

9           They brought a lot of this stuff back  
10      and we don't know where it goes, how it goes. We  
11      are concerned.

12          Now, we went to the courts; we went to  
13      the State Lands Commission; we went to the federal  
14      government. We were rebuffed all the way. They  
15      do not have to do anything because they're in  
16      Mexico. It doesn't make any difference if the gas  
17      is coming from El Paso. The result is in a  
18      foreign country, so it's treated differently than  
19      it is in the United States.

20          We talk about bilateralism,  
21      binationalism. So in the meantime we have the  
22      highest rate of asthma in the State of California.  
23      I shudder to think -- this is Imperial County -- I  
24      shudder to think what it's like in Mexicali.

25          I fly an airplane. I go regularly to

1 Loreto and (indiscernible), and there are times  
2 when I come in I cannot find the airstrip in  
3 Calexico because of smog.

4 I live 17 miles from the border, and my  
5 son, in one of these inversion layers in the  
6 wintertime, asked me, "What is that 'mell, Dad?"  
7 He's six years old. I say that's Mexicali.

8 Now, we met with environmentalists in  
9 Mexicali (indiscernible), Universite de -- Baja,  
10 California, and they say this is a federal issue;  
11 we can't do anything about it.

12 And so I agree with you, we've got to  
13 get together on this thing. The reason I'm here  
14 today is the IID, as you know, is bringing on  
15 another geothermal plant, bringing 2000 megahertz,  
16 megawatts, whatever, 2000 something.

17 They'd like to put another green loop  
18 they call it in, transmission lines. Now,  
19 coincidentally this transmission line that they're  
20 putting in to move this power out connects to the  
21 Imperial Valley substation at the base of Mount  
22 Lookout, which is a -- shot throw from Rosita and  
23 InterGen.

24 The transmission lines coming into  
25 Mexico to that substation, which will move that

1 power north, is about half utilized.

2 Coincidentally Northern Baja Pipeline  
3 was in our County schmoozing around passing money,  
4 making contributions, whatever they want to do, to  
5 get you to listen and talk. I don't mean graft,  
6 I'm talking about a gift to the library, gift to  
7 this. They did that the last time around.

8 They're going to bring LNG through there  
9 now. I never did get a clear indication on  
10 whether they're going to use the existing 40-inch  
11 line, you may know, I don't know, 30-inch line,  
12 which goes into -- I guess it goes into Tijuana,  
13 Rosarito. And I think they're going to use that  
14 line to bring back, or they're at least going to  
15 bring another line.

16 At the same time when Mexico needs more  
17 power, the United States needs more power, and IID  
18 and San Diego Gas and Electric are building this  
19 loop in here, which will be able to ship power  
20 north. And all this across the border is shaping  
21 up.

22 Now, I'm asking you, the Energy  
23 Commission people, and anyone here that can do  
24 this, I can tell you that if -- the environmental  
25 impact studies are going to be connected right now

1 with the new transmission lines, we'll be asking  
2 for a lot. We want offsets from the power just  
3 coming across the border. We want the ability to  
4 inspect and monitor.

5 And we would expect that you, if you  
6 could, and anyone, because we're going to have a  
7 (inaudible) sanction right now by the EPA. We're  
8 having huge problems.

9 When the new power plants, which  
10 coincidentally no one says they're coming.  
11 Everybody says, I don't know. They're all in  
12 denial. But two and two makes four. There will  
13 be a holy war over there to stop this from  
14 happening. I don't care whether it's through Bob  
15 (indiscernible), I don't care whether it's Dianne  
16 Feinstein. We're not against transmission lines.  
17 We're not against power plants. We just want the  
18 offsets so that our children can breathe clean  
19 air.

20 And what's happened over there before  
21 simply cannot happen again. Thank you.

22 PRESIDING MEMBER GEESMAN: I appreciate  
23 your comments, and I think that your experience  
24 with our siting process on the geothermal  
25 facilities that fall under our jurisdiction has

1       been quite favorable.

2               I would recommend, though, in the staff  
3       report that's part of the backup material for this  
4       workshop, Environmental Issues and Opportunities  
5       in the California/Mexico Border Region, that you  
6       have your staff take a look at page 13, and the  
7       figure 1-2 that is on page 13 that identifies the  
8       Salton Sea air basin 2004 estimated emission  
9       inventory.

10              Because in terms of pursuing offsets,  
11       obviously it's going to be most productive to go  
12       to where the offsets are. This is data provided  
13       by the California Air Resources Board. It  
14       identifies the contribution from the energy sector  
15       and other sectors, as well.

16              But, again, I do appreciate your  
17       comments here today, Mr. Supervisor.

18              The next one I have is Cecelia Aguillon  
19       from Kyocera Solar.

20              MS. AGUILLON: Commissioners, thank you  
21       so much for coming to San Diego. My name is  
22       Cecelia Aguillon. I'm with Kyocera Solar. We're  
23       the second largest PV manufacturer in the world.

24              We have just opened an assembly plant in  
25       Tijuana, which is growing rapidly because of the

1 demand for PV worldwide. Our plant is dedicated  
2 to the United States, mainly California. As you  
3 all know, is the largest PV market in the country.

4 We have decided to do -- what I want to  
5 address to you today is the economic development  
6 and environmental, and also the potential for  
7 renewable energy, mainly PV, in the Baja,  
8 California area, San Diego/Baja, California region.

9 We decided to produce PV assembly in  
10 Tijuana because we are next to the largest market  
11 in the country. So, by doing this, we are  
12 providing employment; we're helping economic  
13 development.

14 But we're also taking advantage of, you  
15 know, the low tech labor availability there. And  
16 expanding the high tech in California. We're  
17 taking advantage of the economic benefits  
18 (inaudible) and we're able to bring product to  
19 California that's competitive; that helps the  
20 installer base, which is the bread and butter of  
21 the PV industry.

22 What we see also is that we have similar  
23 weather, and we have the resources in San Diego  
24 which are great for solar, are also great in Baja,  
25 California. And we have all this maquiladora

1 industrial buildings in Baja, California, and  
2 they're growing. And you see that there's going  
3 to be a (inaudible) peak loads and PV helps to do  
4 that, and then distributed generation.

5 Right now the prices are prohibitive for  
6 residential or commercial in Mexico to install PVs  
7 without any kind of a financial incentive. So  
8 what I will ask is that in the binational entity  
9 that was proposed today that you include renewable  
10 energy, both distributed generation and wholesale  
11 members of the industry that can come up with  
12 ideas on how to work a binational program, and  
13 also energy efficiency.

14 In the (inaudible) we believe that  
15 energy efficiency and PV must go hand in hand  
16 because then you -- the projects are most cost  
17 effective.

18 We also see that creating a program that  
19 will increase the demand for PV in Baja,  
20 California, will help the community development  
21 because they will create a base of dealers  
22 installers, since it's going to be companies, not  
23 just, you know, workers on an assembly line. And,  
24 you know, so we can create more entrepreneurs.

25 So what I recommend is that, you know,

1 we think about financing loans for projects and  
2 tax incentives, maybe tax credits, maybe a rebate  
3 program similar to the one in California. And  
4 look at the renewable energy credits.

5 Basically create something that, while  
6 in Japan for example, which is the largest PV  
7 market, you have the residential base of the  
8 economy, bring the prices down of PV by increasing  
9 demand. Maybe in Tijuana it will be the opposite,  
10 where the commercial side of the market will bring  
11 the prices, will help bring the prices down for  
12 the rest of the region, and maybe even the  
13 country. But maybe opposite that happen in Japan.

14 We're also very hopeful that SB-1, the  
15 Governor's initiative, of 3000 megawatts by 2017  
16 becomes a reality. Scott Anders just said that we  
17 have about 4 gigawatt potential for PV with  
18 commercial and residential. So having this bill  
19 pass and having a actual program that has some  
20 long-term horizon will definitely help the  
21 investment for the manufacturers and from the  
22 dealer installer base to bring prices down over  
23 time so that Baja, California also enjoys the  
24 benefits of using solar energy.

25 That's all I have, thank you.



1                   PRESIDING MEMBER GEESMAN: Thanks for  
2                   your comments, Cecelia.

3                   Tom Blair, City of San Diego.

4                   MR. BLAIR: Good morning, Commissioner  
5                   Geesman, Commissioner Boyd. Thank you for  
6                   visiting again America's finest city. We'd like  
7                   to welcome you here.

8                   The City, as you know, has had a goal of  
9                   pursuing energy independence for a number of  
10                  years. And we've been trying everything from  
11                  energy efficiency to onsite cogeneration to small  
12                  photovoltaic systems. And have tried to  
13                  experience all of the barriers that exist for  
14                  anyone who desires to implement the renewables.

15                 And as you look at the bigger market for  
16                 the region, you also have to look at how do we  
17                 deploy these renewables while we're still  
18                 continuing to create the infrastructure that will  
19                 support the baseload needs of the region at the  
20                 same time you're trying to implement renewables.  
21                 Because those two often are counter-balanced  
22                 against each other. And you're looking at would  
23                 we gain more benefit by renewables versus building  
24                 infrastructure for new baseloads. When really we  
25                 need both in the not-too-distant future. So we

1       need to create incentives that are going to help  
2       the renewables over the barriers that are created  
3       throughout the system while the larger independent  
4       utility companies are trying to expand their  
5       infrastructure for the baseload.

6               The significant barriers that we found  
7       to this point come in four regions. One is the  
8       basic tariff issues where you're not allowed to  
9       either wheel your own power or create an offset  
10      for energy that you produce on your own site  
11      against loads that may be very close but are not  
12      immediately adjacent. So some type of easing of  
13      rules in that area would significantly help. Or  
14      if there were a direct access component where you  
15      could -- that power that you generate you can use  
16      to offset your other loads.

17             Since we have 300 square miles of area  
18      and 1400 buildings in self generation  
19      opportunities that are not immediately adjacent to  
20      all of those areas, we would like some way that we  
21      could offset other use for power that we generate  
22      on our own.

23             A second area is in interconnection  
24      rules. I thank you for your support of our  
25      position in your forwarding to the PUC last year

1       the interconnection rule changes which would allow  
2       basically in combined technologies you could  
3       export up to the approved qualifying facility  
4       limit.

5               Right now we do have one facility,  
6       Police Headquarters, where we've got both a  
7       cogeneration plant and a photovoltaic plant. We  
8       have to cycle down the cogeneration on the  
9       weekends because we have the ability to export but  
10      there is no export agreement interconnection that  
11      exists right now in the State of California. So  
12      the PUC is now looking at those issues under the  
13      distributed generation case.

14             There's also a need for some type of  
15      capacity market. What we find is our peak  
16      generation may or may not be coincident with the  
17      utility's need as peak load. If we generate a lot  
18      of photovoltaic energy during the 10:00 a.m. to  
19      4:00 p.m. period in the day, the utility in this  
20      facility is peaking around 6:00 to 8:00 p.m. in  
21      the evening. So those are not necessarily  
22      coincident, and while it helps, it certainly helps  
23      the system, it actually creates some other flow  
24      characteristics that could cause problems on the  
25      utility grid.

1                   So it would be nice to mix that with  
2           other biogas generation, other forms of generation  
3           that help balance the flow on the grid.

4                   We, as the City, have been trying to  
5           finance a number of projects because we do have  
6           energy efficiency improvements that could be made  
7           in many buildings. We appreciate the fact that  
8           you have the CEC loan program, and that has been a  
9           major help to us in creating a financing mechanism  
10          that allows us to package the energy efficiency  
11          and generation projects and everything together so  
12          that they meet all the criteria. And then go  
13          forward with whole building improvements for  
14          libraries, for police headquarters, for different  
15          police substations.

16                  So that mechanism is very helpful and I  
17          would encourage you to expand the availability of  
18          those loans to maybe other organizations other  
19          than just municipalities, or expand the dollars  
20          available under them so we could do more projects.

21                  The City's identified 35 acres of solar  
22          area that's available within our own City  
23          facilities. We have a large number of concrete  
24          watertank tops that have very good solar  
25          orientation that right now are not cost effective

1 to develop. We're looking at ways that we can  
2 bring those to market in the next couple of years.

3 But as Scott has mentioned, there is  
4 huge availability of renewable potential in the  
5 region. So we do need to balance with these and  
6 see how we can finance some of these projects.  
7 There are more -- highly -- a higher cost than  
8 what the baseload cost is right now.

9 We're also looking at small hydro  
10 projects since we have hundreds of miles of piping  
11 that's pressurized for water distribution. A lot  
12 of those pressure reducing stations are prime to  
13 produce small amounts of energy that could offset  
14 pumping costs in those distribution systems.  
15 We're looking at some technologies now that are  
16 available on the east coast. So help in deploying  
17 those would also be very useful.

18 PRESIDING MEMBER GEESMAN: What size are  
19 those applications likely to be, Tom?

20 MR. BLAIR: They would be probably in  
21 the 20 kilowatt or lower sizes. It would vary  
22 with the piping size --

23 PRESIDING MEMBER GEESMAN: Right.

24 MR. BLAIR: -- what the flow rate is.

25 We also, since we go have one cogen -- well, we

1        actually have a number of cogeneration facilities,  
2        even in the biogas facilities we use the thermal  
3        output from the generators to actually preheat to  
4        heat the digesters and improve the gas flow from  
5        the biogas.

6                So we've experimented with a lot of the  
7        different technologies.

8                What's happening right now in the water  
9        systems is we're trying to come up with a  
10       financing mechanism that makes it cost effective  
11       within their limited financial availability to  
12       deploy some of these projects which could provide  
13       a significant amount of renewable energy for the  
14       region.

15               Thank you.

16               PRESIDING MEMBER GEESMAN: Thanks very  
17       much for your comments.

18               Carlos Larios.

19               MR. LARIOS: Hello, Commissioners. My  
20       name is Carlos Larios. I was born and raised in  
21       the San Diego/Tijuana region. I was educated in  
22       Mexico. I'm a civil engineer, and now I work as  
23       consulting for the Energy Commission.

24               And in support to your comments about  
25       binational cooperation we incorporated a company

1 in Mexico, which I'm heading, with U.S. engineers  
2 and U.S. consultants working with Mexican  
3 engineers and Mexican consultants.

4 We're trying to integrate what we do  
5 over here to what's going on over there. There's  
6 a lot of energy projects that are being developed  
7 over the region and we want to participate in  
8 those projects.

9 What we have found is that there's no  
10 actual entity, a direct entity. Like you say,  
11 something like the Energy Commission in the States  
12 for Mexico. I know that one is about to be  
13 formed, as Scott mentioned. Have been talking to  
14 people. But there's a lot of good intentions, but  
15 there is no actual somebody like to provide  
16 guidance.

17 That's my comment. Anything that we can  
18 help with over there we are open to suggestions or  
19 anything. Thank you very much.

20 PRESIDING MEMBER GEESMAN: Thank you,  
21 Mr. Larios. Okay, I'd like to thank our panel  
22 members. We've had a very good discussion. I'd  
23 like to get the transmission panel on, though,  
24 before we have our lunch break.

25 (Applause.)

1           MR. OLSON: Okay, I'm going to ask the  
2           transmission panel, Dave Geier, San Diego Gas and  
3           Electric Company; Bill Powers; and I'm not sure if  
4           there's a representative from the Cal-ISO here.

5           And I'd like our consultants then now to  
6           go back and give a very brief overview of what we  
7           found in the reports. And also, Eric Knight, if  
8           you have comments on this section first. So, can  
9           you start the -- it will be about three or four  
10          overview slides here.

11          And Al Sweedler is going to join this  
12          panel.

13          (Pause.)

14          MR. MURPHY: Thank you, Tim. I'd like  
15          to talk a little bit about the electric  
16          transmission systems in California and Baja,  
17          California border region.

18          As described earlier, SDG&E supplies  
19          electricity to a service area through a  
20          combination of onsystem generation and imports.  
21          Approximately 60 percent of SDG&E's electricity is  
22          imported from outside the region.

23          SDG&E can import 2850 megawatts of  
24          offsystem electricity when all transmission  
25          facilities are open, such as the Southwest power



1 link and Path 45.

2 Transmission lines extending from  
3 Imperial Valley and Mexico have experienced  
4 significant congestion in the SDG&E service area.  
5 Particularly at the Miguel substation. This  
6 congestion at Miguel substation is primarily due  
7 to powerflow associated with new power plants on  
8 the south and east of Miguel substation. And, as  
9 well, there's a number of new 230 kV transmission  
10 lines proposed and under construction at the  
11 Miguel substation.

12 And the final point I wanted to make is  
13 the current east/west transmission capacity will  
14 likely constrain transmission of additional  
15 electricity generated by the renewable resources  
16 located in the inland areas to the markets in  
17 coastal areas with the highest electricity demand.

18 This slide illustrates the border  
19 region's transmission system. A majority of  
20 SDG&E's imported electricity comes in the service  
21 area via the Miguel-Mission substations from the  
22 east and San Onofre switchyards from the north.

23 SDG&E is interconnected to the Cal-ISO  
24 system through Southern California Edison by five  
25 230 kV lines, also known as Path 45. And that's

1 up by San Onofre nuclear power plant up on the  
2 left-hand side of that screen.

3 It can also import power from out of  
4 state through the 500 kV southwest power link  
5 transmission line. And that is the red line  
6 running along the border between Mexico and  
7 California.

8 And from Mexico through two 230 kV  
9 transmission lines also called Path 45. And  
10 that's the two green lines running along the  
11 border on the Mexico side.

12 The final point is SDG&E has no  
13 intrastate 500 kV connections at this time.

14 This figure shows a summary of  
15 projections for SDG&E's grid reliability planning  
16 on the three system peakload scenarios.  
17 Represented in this graph are electricity supply  
18 from imports and generation minus the largest  
19 generator under three different demand  
20 projections.

21 The most important point highlighted by  
22 this slide is the possible major grid deficiencies  
23 occurring as early as 2010 if the baseload Encina  
24 and South Bay power plants are retired, as  
25 assumed.

1           SDG&E's long-term resource plan states  
2       that there's a need for another major transmission  
3       project to access potential removal of resources  
4       and provide enhanced grid reliability.  
5       Specifically the plan calls for a transmission  
6       project that complies with Cal-ISO's planning  
7       criteria, replaces RMR generation, allows for  
8       retirement of aging power plants, delivers  
9       additional electricity generation at lower costs,  
10      increases the diversity of supply, and replaces a  
11      portion of expiring DWR contracts.

12           Regarding renewable resources, SDG&E has  
13      committed to achieving the state-mandated 20  
14      percent renewable portfolio mix by 2010 and 24  
15      percent by 2017. In order to achieve that the 20  
16      percent of renewable generation goal by 2010,  
17      SDG&E must procure 777 megawatts of renewable  
18      energy. Currently SDG&E has contracted for  
19      approximately 225 megawatts of renewable  
20      generation through 2010. They still need an  
21      additional 552 megawatts.

22           A key project that will contribute to  
23      SDG&E's renewable energy mix is the addition of  
24      significant geothermal resources from the Salton  
25      Sea, which will be transmitted into SDG&E service

1 area transmission line, transmitting to SDG&E's  
2 service area via transmission line construction  
3 upgrades in conjunction with the Imperial  
4 Irrigation District.

5 Other resources that could contribute to  
6 SDG&E's renewable generation are geothermal  
7 electric plants in Cerro Prieto, and potential  
8 wind projects at Juarez Mounds and Lara  
9 (indiscernible) area. However, currently the  
10 transmission systems in these areas are not  
11 configured to export large amounts of power to the  
12 U.S. and will need significant upgrades.

13 At this point I'd like to turn it over  
14 to Nick to talk a little bit about the  
15 transmission issues in Baja, California.

16 MR. PUGA: The transmission system in  
17 Baja, California aside, although this diagram,  
18 I've been told that only an engineer would love.  
19 Let me go back actually discover that this diagram  
20 shows it more clearly for -- it has a better  
21 mapping to the geographic layout of the lines.  
22 The other one's a single-line diagram that  
23 electrical engineers find very useful, but you  
24 can't place things on the map.

25 The backbone of the transmission system

1 in northern Baja lies on the 230 kV east/west  
2 line, which we can see here on this green area.  
3 That connected the valley side of Mexicali and the  
4 generation resources from Cerro Prieto and the  
5 power plants in the Mexicali area to the Tijuana  
6 and coastal areas of northern Baja. Those two  
7 lines have a transmission path capacity limit of  
8 368 megawatts.

9 During the winter months these, as I  
10 mentioned earlier, these lines carry a flow of 250  
11 to 280 megawatts from the valley area, where the  
12 generation is located, to the coastal areas. In  
13 the summer this flow reverses to have a peak of  
14 about 150 to 200 megawatts from the coast to the  
15 valley, contribution Rosarito plants to meet the  
16 valley summer peak created mostly by air  
17 conditioning and irrigation.

18 Currently CFE in their transmission  
19 expansion plan contemplates no additional capacity  
20 additions to this transmission path, except for  
21 transmission (indiscernible) form a capacity of  
22 several substations for reliability purposes. One  
23 of them is going to be additional transformer  
24 capacity in the section this path between the  
25 Metropolitana (indiscernible) substation and the

1 Tijuana I substation. This line, which will be  
2 reconductor in relation to the transformers is  
3 linked to the need for transmission for the new  
4 220 megawatt combined cycle generating facility  
5 which will begin service in 2008 at Rosarito which  
6 is fired by natural gas already contracted by CFE  
7 to supply incremental needs of Tijuana and  
8 Ensenada.

9 In this graph one can see that the main  
10 interconnection points to the U.S. system are at  
11 La Rosita and the Tijuana area. And this loop --  
12 the border, there's a line you cannot see here,  
13 the border line goes in the middle of this  
14 (indiscernible). There's the 500 kV path from  
15 Valley Imperial to Miguel substation north of the  
16 border. And in the south this 230 kV path that I  
17 described.

18 There's several transmission lines  
19 currently connecting California with Mexico. The  
20 Cerro Prieto geothermal plant in northern Baja,  
21 California is connected to the U.S. grid at  
22 Imperial Valley substation. At one time this  
23 Cerro Prieto generation station contributed  
24 significantly to exports to both Irrigation  
25 District in Imperial and to San Diego Gas and

1 Electric. But as the load has increased in Mexico  
2 and the contract has expired, those imports  
3 diminished.

4 We can see on this table where the --  
5 when the contract expired in 1996 the Mexico-to-  
6 California transfer decreased from 1258 kilowatt  
7 hours per year to 17 just for security purposes.

8 As we see, this trend increased to reach  
9 765 megawatts in 2003, when the generating  
10 facilities in Mexicali were built for export,  
11 began operations.

12 There are other interconnections not of  
13 much significance. San Diego Gas and Electric is  
14 connected to Tijuana and Tecate, Mexico by two  
15 12,000 volt transmission lines. There are also  
16 three 34.5 kV lines connecting Calexico to Baja,  
17 California that connect some load pockets that  
18 traditionally were served by the Imperial  
19 Irrigation District in Mexico.

20 I think the important point is to see  
21 that instate configuration this is what called  
22 Path 45. The export limit for Mexico to the  
23 United States is capped at 800 megawatts. There  
24 were studies scattered out to study the expansion  
25 of capacity in this line, this path, to

1       accommodate new generation applications which are  
2       no longer valid. They were withdrawn. And  
3       therefore, there are no current plans to expand  
4       the export/import capacity between these two  
5       systems.

6               I think with that we'll turn the floor  
7       over to the panel.

8               MR. OLSON: Okay. Any questions or  
9       comments from Eric Knight on environmental topics?

10              MR. KNIGHT: I could touch on the  
11       environmental side. I think the transmission side  
12       was handled pretty well.

13              MR. OLSON: Okay.

14              MR. KNIGHT: I'm Eric Knight with the  
15       Energy Commission. I managed the staff's  
16       preparation of the environmental issues paper.  
17       And in there was a chapter on transmission. And  
18       it went into a lot of the background that these  
19       gentlemen covered, so I won't cover that.

20              But building new transmission lines is  
21       obviously challenging, particularly if you're  
22       talking about new rights-of-way.

23              A line from the Imperial Valley is going  
24       to most likely need to cross the Anza Borrego  
25       Desert State Park, which covers pretty much the



1 entire eastern county line, which will require  
2 coordination with the State Parks Department.

3 There is some language now in the  
4 general plan which does talk about coordinating  
5 with the utilities to insure that any new lines or  
6 expanded facilities within the park avoid  
7 sensitive areas dealing with impact, scenic vistas  
8 within the park. But that is going to be a  
9 challenge throughout that line through the park.

10 There's also numerous Native American  
11 lands, and as sovereign entities the utilities  
12 would have to negotiate with those tribes to build  
13 a line through their land.

14 In addition, San Diego is a biologically  
15 diverse region and there are many endangered  
16 species and habitat areas which would need to be  
17 avoided. And in addition there's wilderness areas  
18 which would need to be avoided; and preservation  
19 areas that would need to be avoided.

20 In terms of a line into Mexico, I know  
21 that that was one of the options that was studied  
22 by SDG&E in their southwest transmission expansion  
23 plan. And there's a number of reasons it was  
24 ruled out. And I've listed those on page 47 of  
25 the paper.

1           A number of engineering reasons; poor  
2       thermal performance and increased congestion at  
3       Miguel. And also there's the permitting concerns  
4       about attaining U.S. Presidential permits to  
5       connect the line at the border. And also the  
6       current Mexican law which requires ownership of  
7       lines in Mexico that connect to the CFE system,  
8       that they be owned by CFE.

9           There's also concerns about  
10      uncertainties over economic geothermal potential  
11      at Cerro Prieto, and meeting the target dates of  
12      2010 that SDG&E has set.

13           We've laid out a number of suggestions  
14      for the Committee to consider. One of those is  
15      participating in appropriate infrastructure  
16      working groups and policy forums; the Border 2012  
17      framework. And Mr. Sweedler had mentioned  
18      establishing a binational energy planning group.  
19      And I was wanting to know if creating that entity  
20      within an existing framework like Border 2012  
21      could maybe address -- okay --

22           (Laughter.)

23           DR. SWEEDLER: We can talk about that  
24      later.

25           MR. KNIGHT: Right, okay. And another

1 recommendation is working with key stakeholders  
2 and insure the siting of needed cross-border  
3 transmission and pipeline facilities are done in  
4 an environmentally responsible and efficient and  
5 timely manner. And this would be, I think, a goal  
6 of the binational energy entity that could be  
7 created.

8 And then another potential suggestion is  
9 supporting additional exploration of whether  
10 upgrades to CFE transmission lines and Path 45  
11 lines could meet the needs that the 500 kV lines  
12 that SDG&E has identified through the transmission  
13 comparison study group.

14 That would involve construction within  
15 existing rights-of-way, upgrading existing  
16 facilities and not a new greenfield 500 kV line.  
17 So from purely an environmental perspective that  
18 would be preferable. But I think from an  
19 engineering perspective there's problems with that  
20 option.

21 So, that's it.

22 PRESIDING MEMBER GEESMAN: I might note  
23 that the State Parks Department, Department of  
24 Parks and Recreation, if I've got the name right,  
25 did appear before us in our workshop for the 2004

1 IEPR update last August or September to report on  
2 initial planning work that they had been doing  
3 with San Diego Gas and Electric addressing the  
4 Anza Borrego issue.

5 MR. KNIGHT: And the general plan for  
6 Anza Borrego has been adopted, and it now includes  
7 language that the Parks Department will cooperate  
8 with the utilities to insure if those lines are  
9 needed and must cross through Anza Borrego, that  
10 they're done in an environmentally acceptable  
11 manner.

12 PRESIDING MEMBER GEESMAN: At the time  
13 of their appearance they were pretty complimentary  
14 of the initial planning work that was underway at  
15 the time. Do you know if their sentiment has  
16 changed?

17 MR. KNIGHT: No.

18 PRESIDING MEMBER GEESMAN: Why don't we  
19 go to the panel, then.

20 MR. OLSON: I just wanted to make, I  
21 think Nicholas Puga has one more thing, one more  
22 slide here that I wanted to go over just briefly,  
23 if you can, Nicholas. And then we'll go to the  
24 panel.

25 MR. PUGA: In the paper that touched

1       upon the potential for renewables in the Baja  
2       side, which is significant, unfortunately, as  
3       Commissioner Geesman pointed out, there is a  
4       dearth of data available.

5               But there seems from the little evidence  
6       that we can find, and this map is one of them, we  
7       took the NREL 50 meter power density charts that  
8       have been published for Baja and superimposed that  
9       layer on the (indiscernible) map, which has  
10      (indiscernible). It's hard to see, but if you  
11      blow it up you can see (indiscernible).

12              But let me use the pointer to point out  
13      this area in inset here is the area that on the  
14      U.S. side overlaps Anza Borrego on the Kunai  
15      Reservations. This is the highway that runs  
16      across that area. There's a transmission line.

17              On the Mexican side, which is this  
18      dotted line, you can see that there is significant  
19      potential here in the area (indiscernible). There  
20      is significant anecdotal evidence of winds.  
21      Actually driven through the area in a van you  
22      can -- you often wonder whether you'll be turned  
23      over.

24              And several companies have gathered  
25      quite a bit of data over the years about the

1 potential in this area. (indiscernible)Tech has a  
2 large data set that is now administered by NREL,  
3 and which was used, in part, to prepare these  
4 charts.

5 Interesting about this area here is that  
6 the 230 kV path that I mentioned earlier crosses  
7 right here, parallel within one mile to  
8 (indiscernible) line of the highway. And so it  
9 crosses right through the middle of the highest  
10 potential for wind in this region.

11 However, as I mentioned, it will require  
12 -- the potential in this area is significant.  
13 There currently are permits issued by the Comision  
14 (indiscernible) Commission in Mexico for 300  
15 megawatts in one sole permit, which I think is  
16 owned by (indiscernible) which will likely be  
17 developed. And there is no sufficient capacity to  
18 wheel that power across in a westbound direction  
19 at the current time.

20 I understand there is also interest in  
21 this area over here, which is south of Tecate,  
22 which would also end up connecting to this 230 kV  
23 transmission path.

24 We have the same issue with Cerro Prieto  
25 additional resources. CFE currently has in their

1 feasibility study an additional 120 megawatts of  
2 generation in Cerro Prieto; are not officially  
3 repeated in the resource plan, but the people in  
4 the Baja, California region -- CFE optimistic that  
5 at least the first 30 will be developed. Also  
6 various issues about transmission capacity.

7 And I think one thing that I would like  
8 to stress again is that, and several speakers on  
9 the panel have pointed out, adopt a more  
10 aggressive energy efficient efforts in the coastal  
11 region would free up some of these transmission  
12 capacity, the same in Mexicali, that would be  
13 available to wheel the renewable resources in the  
14 southern part of the border.

15 DR. SWEEDLER: Can I just add one point  
16 to Nick's comments. Our studies corroborate the  
17 general comments because it's funny, you have the  
18 white map syndrome, and now it's the opposite that  
19 most people are looking at. Somehow it's white on  
20 the California side.

21 But in the insert you can see that  
22 extension and that's where I suggested coming up  
23 with about 1500 megawatts. But it's highly  
24 seasonal dependent. It drops down to very very  
25 low values in the summer and increases, as you

1 might expect, in the winter months.

2 So, from a resource plan, -- and the  
3 same thing is true on the Mexican side. So from a  
4 resource plan perspective that's going to need to  
5 be taken into account.

6 But nevertheless, the point made about  
7 the transmission is still valid.

8 MR. OLSON: Okay, can we go to the  
9 panel, and I'd like to go the same thing like the  
10 earlier panel, we'd like to get your insights,  
11 comments, recommendations, things we may have  
12 missed in our reports. I'd like to start with  
13 Dave Geier with SDG&E, followed by Jeff Miller of  
14 the California Independent System Operator, and  
15 then Bill Powers with the Border Power Plant  
16 Working Group, and then Al Sweedler, again,  
17 closing this.

18 So, Mr. Geier, do you have any comments?

19 MR. GEIER: Thank you for inviting me  
20 today, Commissioners; it's always good to see you  
21 in San Diego again.

22 I'll start on the environmental side,  
23 and the thing I sort of reacted to a little bit  
24 was the thought that this is our -- looking at it  
25 from (inaudible) value to San Diego. I wouldn't



1       really classify it as a greenfield site. We do  
2       have transmission right-of-ways for a large  
3       portion of that line, be it they're not wide  
4       enough for a traditional 500 kV line.

5               But we have, as the Commissioner  
6       mentioned, worked with the State Park system. And  
7       I'd characterize our discussions as still very  
8       positive. I think there's a realization that we  
9       will need to have a transmission line from the  
10      east to meet our goals.

11             And in addition to looking at those  
12      right-of-ways we realize we need to be flexible as  
13      far as where the lines go. From our discussions  
14      with the State Park system, BLM, the Forest  
15      Service, we realize those areas that we're in  
16      today that they'd just as soon us move. And we're  
17      open to that. We think there can be a win/win  
18      situation there.

19             The other key thing that we're looking  
20      at is we realize with the tight right-of-ways and  
21      just the population growth of San Diego that we  
22      probably can't build a traditional 500 kV line.  
23      If you look at the lattice structures that people  
24      have built in the past, including ourself, those  
25      lines probably will not be acceptable from an

1 environmental perspective.

2 So we're looking at new technology.

3 We've learned a lot with our upgrade of the  
4 Miguel-Mission line, the 230 line. We're actually  
5 upgrading that right-of-way to bring another, you  
6 know, 300 to 400 megawatts through an existing  
7 right-of-way. We had to convert some lattice  
8 towers from the 69 kV level to 230. We've used a  
9 lot of steel poles; we're using high temperature  
10 conductors. So we think through the use of maybe  
11 some more high temperature conductors, even some  
12 ceramic core conductors, which will allow a 500  
13 kV, by the time we build this line they may be  
14 acceptable, we can reduce the profile of that line  
15 and again try to get a win/win situation.

16 So, I think the concept of greenfield  
17 isn't quite there, maybe it's a brownfield. I'm  
18 not sure if it's something in the middle, there is  
19 some right-of-way.

20 The other thing I'd just like to report  
21 on, and it was part of the report, was the STEP  
22 stakeholder process that was a major milestone  
23 that we accomplished last month, and that truly  
24 was a technical study where we compared -- first  
25 of all, STEP, I think, as most people know, it's a

1 stakeholder process. We had 22 participants from  
2 13 different entities.

3 Really this is not a routing study; this  
4 is really the technical study, how well these  
5 various transmission options performed.

6 We started out with about nine different  
7 options. Through the process an additional nine  
8 options were looked at. So a total of 18 options  
9 were evaluated by the group. So a tremendous  
10 amount of work actually.

11 And really the criteria was based on  
12 three needs, which I think as we move forward with  
13 this line you'll see that in our need showing is  
14 that first of all there's just the reliability  
15 need. And that is what traditionally transmission  
16 lines have been based on.

17 But in addition to reliability there's  
18 economics. I know the first panel was  
19 considerable discussion about the congestion,  
20 particularly at Miguel. And what we found for the  
21 last three years as we've been upgrading the  
22 southwest power link, we started in 2003 in  
23 Imperial Valley. We added a second set of  
24 transformers there. 2004 we moved the congestion  
25 closer to Miguel, so we doubled the transformer

1       capability at Miguel. We had to put more --  
2       capacitors out in Imperial Valley.

3               This year, a year ahead of schedule, we  
4       got Mission Number Two, so we keep moving the  
5       congestion closer to the load. And so the second  
6       leg of the three-legged stool is the economics.  
7       How will this line really impact the RMR costs.  
8       And currently for our customers here in San Diego  
9       that cost is \$200 million a year. And that truly  
10      is, in my opinion, just strictly a waste. And we  
11      can do a better job of managing that congestion.  
12      So that's the second leg of the stool.

13             The third is what we've talked a lot  
14      about here is being able to connect to renewables.  
15      And the fact that I won't say we can't meet our  
16      2010 goal; I'm not sure how we'll do it without a  
17      new line. But it's going to be very very  
18      difficult to connect renewables. And that's both  
19      renewables out of our basin in the Imperial Valley  
20      area. But even the renewables that are in San  
21      Diego County, without significant transmission  
22      upgrades it will be very difficult to meet the  
23      renewable goals.

24             And we didn't see that with the first  
25      addition at the Cumaya wind farm. We have to

1 upgrade a 69 kV line to get, you know, that power  
2 back. And almost every site, just by its nature  
3 they're going to be remote. And the transmission  
4 system we have in the past really did not, you  
5 know, serve much load out there. So I think  
6 everyplace you see the renewables you're going to  
7 start seeing transmission upgrades.

8 And back a little bit to the STEP  
9 process, so those are the three main criteria. We  
10 looked at the various alternatives and what came  
11 out of that, we went into each one of those giving  
12 them a firm rating, through that process we came  
13 out that the preferred alternative (inaudible)  
14 from the Imperial Valley area to what we're  
15 calling central San Diego.

16 Again, there's been no routing studies  
17 done. San Diego Gas and Electric is serious about  
18 this line. We're moving forward with it. We are  
19 probably within weeks of writing a contract both  
20 for the environmental work and the technical help  
21 from outside consultants.

22 And so (inaudible) central is someplace  
23 in the Imperial Valley to someplace in San Diego  
24 County. And the concern is as you move further  
25 south towards the border, and we just saw

1       certainly a good technical diagram, upgrading the  
2       CFE system really would add more congestion to  
3       Miguel. And that's (inaudible) the analysis that  
4       was done through the stakeholder group.

5               I'd also like to add that there was a  
6       little bit of discussion about communication with  
7       CFE. We've always had excellent communication  
8       with CFE. We've been partners; we have the two  
9       interconnection points. Last year when San Onofre  
10      tripped we called CFE and they provided us I think  
11      it was over 300 megawatts almost instantaneously.  
12      So we have a great relationship. And we will  
13      continue to work with CFE on the issues. And  
14      there's more renewables in Baja, Mexico. We can  
15      find a way to work this out.

16             I think if the technical studies would  
17      have shown that the Mexico line was the preferred  
18      route, some of the issues that were laid out are  
19      things we can work through. That, in fact,  
20      because of its location and, you know, the fact  
21      that our load really truly is central San Diego,  
22      that's what sort of drove the, you know, bringing  
23      a third line.

24             It's almost like bringing a third  
25      freeway to San Diego. We now have a highway 5

1 along the coast; we have a highway 8 going to  
2 Imperial Valley; and now we need a highway 15, if  
3 you will, that serves all the growing area to the  
4 north central part of San Diego County.

5 PRESIDING MEMBER GEESMAN: You've  
6 reduced your number of alternatives to four  
7 recently. Is that going to come down to a smaller  
8 number before you initiate your consultant work?

9 MR. GEIER: That will be the starting  
10 point. And the consultant will work with that. A  
11 couple of those options are very similar. So some  
12 of them are the full 500 loop that connects us  
13 back to Riverside County. We think that's  
14 probably the overall plan. It may or may not be  
15 the plan we put forward initially. From a  
16 reliability perspective, we don't need both lines  
17 right now. We just need one of the two.

18 So it could be, you know, a phase one;  
19 and then I think that part of this -- the  
20 questions that were raised is, you know, where do  
21 you put the power plants. And we think what the  
22 ISO, the market redesign, and we get LMP prices in  
23 place, that that would drive where the plants are  
24 sited, not necessarily someone thinking that Baja  
25 is better than, you know, central California.

1           The LMP will help us tremendously as far  
2       as making sure the power plants are located in the  
3       right sites.

4           PRESIDING MEMBER GEESMAN: And would you  
5       venture a calendar in terms of permit process for  
6       transmission lines?

7           MR. GEIER: We plan this fall to put  
8       forward our need showing. We do not think that  
9       the traditional CPCN process that we've had in  
10      place in the state, you know, for the last 15, 20  
11      years is necessarily the process we would use with  
12      this line.

13           So we will have a need showing this  
14      fall. We hope to be able to work with the state  
15      agencies on the environmental piece. And  
16      hopefully look at, in conjunction as opposed to,  
17      you know, basically utility doing one  
18      environmental study and then the state going back,  
19      sort of re-doing that, if you will.

20           We believe it's in everybody's interest  
21      to do one study, and we'll collaborate on that  
22      study. And that, you know, that will take some  
23      time. And we'd like to introduce that sometime.  
24      I don't have a date for that yet. But, again,  
25      instead of having a couple-year process, we'd like



1 to bring that down to something less than a year.

2 PRESIDING MEMBER GEESMAN: Thank you.

3 MR. OLSON: Mr. Geier, could you clarify  
4 just for the record here what you mean by the  
5 congestion at Mission-Miguel. Are you referring  
6 to, it's completely full capacity on the existing  
7 lines, and the new construction? Or is it a  
8 complete -- is it over capacity for the corridor?  
9 Is there any room for any corridor expansion?  
10 Additional lines in the same corridor.

11 MR. GEIER: That was an option that we  
12 explored, was the additional lines in the  
13 corridor. And from a reliability perspective we'd  
14 have to have some separation in that corridor. So  
15 probably existing corridor wouldn't be wide  
16 enough. But again, you could expand that  
17 corridor.

18 But what we found is that the existing  
19 scope of the corridor is very subjective to fires.  
20 That line has really not had a good overall  
21 performance. A lot of it is tied to fires and  
22 weather conditions. So all that was taken into  
23 account, and that was one of the options that was  
24 considered.

25 From a congestion point of view I think

1 the second part of your question, prior to the  
2 work we completed last year, the capacity of the  
3 southwest power link was about 1100 megawatts.  
4 That was limited by the transformer banks at  
5 Miguel.

6 We increased that by 300 to 400  
7 megawatts, depending on where you are on the  
8 nomograph. By adding the banks, the load growth  
9 that's allowed basically, I guess the positive  
10 things, it's allowed 300 or 400 more megawatts to  
11 come into San Diego. But if you look at how that  
12 line is (inaudible), and Jeff could probably, you  
13 know, talk more about this, that line is fully  
14 subscribed at this time.

15 Within the month when we complete  
16 Miguel-Mission number two, we're going to bring  
17 that capacity up to about 1900 megawatts. So with  
18 these two projects we've increased the capacity of  
19 that line by about 70 percent.

20 But we believe that what will happen is  
21 as soon as we do that, is that line will be  
22 subscribed. You have to remember there's 8000  
23 megawatts sitting in Arizona that just waits to  
24 come to California. So we think that line's going  
25 to be fully subscribed again.

1                   From a congestion point of view, you  
2                   know, we have to deal with that on a daily basis,  
3                   Jeff knows. But, again, so the line will be fully  
4                   subscribed; and in 2010 we start bumping up  
5                   against the reliability concerns. Up to that  
6                   point, with the southwest power link and the lines  
7                   coming from San Onofre we're okay from a  
8                   reliability perspective.

9                   MR. OLSON: And can we now go to Jeff  
10                  Miller, the California Independent System  
11                  Operator.

12                 MR. MILLER: Thank you and good morning,  
13                  Commissioners and others. Appreciate your giving  
14                  an opportunity to the California Independent  
15                  System Operator to offer some comments.

16                 As far as comments on the report  
17                  prepared by consultants, I thought it was fine. I  
18                  really don't have anything that I would change in  
19                  it. There was one thing I'd like to perhaps  
20                  discuss in a little more depth. I'll use my time  
21                  to do that.

22                 We'll discuss, you know, how the  
23                  economics of these projects work out, and what  
24                  sort of costs the ISO is looking forward to as far  
25                  as new lines and RMR contracts.

1           One thing I think is very important for  
2   everybody to understand is how new lines are paid  
3   for, now that the California ISO is here.

4           If San Diego were to build a new 500 kV  
5   line, say that line cost \$1 billion. The way that  
6   is financed, and I don't think it'll be a billion  
7   dollars hopefully, but the way it's financed,  
8   right now with current interest rates and so on,  
9   that means an annual cost of about \$100 million.

10          That cost is spread across the grid.  
11   So, the way that San Diego's share is determined  
12   is based on its load compared to the overall  
13   California ISO load, which is 10 percent or less.

14          So the annual cost to San Diego of that  
15   new line is something in the order of \$10 million.  
16   So a billion dollar line, 10 million to San Diego.

17          On the other hand, if we don't have  
18   adequate transmission and we have to sign RMR  
19   costs with local generators, those costs are not  
20   spread across the grid. Those costs say in the  
21   locality that they're expended in. So San Diego's  
22   cost, as you heard Dave Geier mention, are 200  
23   million in one year.

24          Now this new line could substantially  
25   reduce those RMR costs, and that's one of the main

1 drivers behind this new transmission.

2 If we look across the whole ISO grid we  
3 see that the actual RMR costs, San Diego has a big  
4 chunk. But this year we topped \$1 billion in RMR  
5 costs. You can spend \$10 billion on transmission  
6 lines if it would get rid of those RMR costs.  
7 There may be other options, energy efficiency,  
8 other generation and so on. But transmission is  
9 one of the ways that we can get the cost down, get  
10 the costs to San Diego ratepayers down. And  
11 that's one of the primary drivers in this new 500  
12 kV line.

13 PRESIDING MEMBER GEESMAN: Jeff, not to  
14 flog a dead horse, but on the off chance that  
15 there's somebody in the audience that hasn't heard  
16 me say this five or six times before, the way the  
17 state looks at these economics, by statute, is so  
18 backwards that when the California Public  
19 Utilities Commission reviewed the economic impact  
20 of the Valley Rainbow proposal, the test wasn't to  
21 all users of the ISO grid, but rather the test was  
22 to the SDG&E ratepayers, themselves, assuming that  
23 SDG&E wasn't paying the 10 percent that your  
24 example assumed, but rather loading 100 percent of  
25 the costs on the SDG&E ratepayer.

1                   MR. MILLER: Yeah. And you know, mainly  
2                   from, you know, if you look at it from the ISO-  
3                   wide perspective, perhaps you should look at the  
4                   total costs. At the ISO that's the way we view  
5                   part of our role is to look at, okay, maybe this  
6                   line makes wonderful sense for San Diego, but it  
7                   doesn't make sense for the overall ISO grid.  
8                   Well, when we look at the project that's how we  
9                   look at it.

10                  Valley Rainbow, when we originally  
11                  proposed that to the Public Utilities Commission  
12                  that was justified primarily on reliability need.  
13                  And, as you know, the Commission didn't --

14                  PRESIDING MEMBER GEESMAN: Well, we've  
15                  got some outdated statutes that govern the Public  
16                  Utilities Commission's review of these kinds of  
17                  projects, and hopefully those are in the process  
18                  of being changed this year.

19                  MR. MILLER: I hope so. There was just  
20                  one other point that I'd like to make, and I think  
21                  it's an interesting contrast that you can develop  
22                  between San Diego and other cities in the state,  
23                  like San Francisco.

24                  San Francisco has taken a quite  
25                  different approach from San Diego when they look

1       at transmission versus local resources. San  
2       Francisco is doing everything it can to build new  
3       transmission into the City in order to be able to  
4       retire and eliminate the local resources. They  
5       would like to have no generation at all in the  
6       City, just transmission to bring it in from  
7       outside.

8               When I look at San Diego I see what,  
9       from my perspective, may be a more noble approach,  
10      where you want to have the resources internal to  
11      the load and try, as much as possible, be self  
12      sufficient.

13             But I don't think that transmission, you  
14      know, I don't think that it's in the best  
15      interests of San Diego to leave transmission as  
16      sort of the last choice. I think transmission is  
17      a very cost effective solution for San Diego and  
18      it should be weighed more heavily in the overall  
19      resource mix.

20             MR. OLSON: I have one question and it  
21      goes to do you envision any circumstances where  
22      California ratepayers might cover the cost of, if  
23      there's a benefit to California, cover the cost of  
24      transmission line upgrades or construction in  
25      Baja?

1           MR. MILLER: That's an interesting  
2 question that there's no clear answer to right  
3 now. We're not even sure we can fund transmission  
4 upgrades on another system that's not owned by the  
5 ISO in this country, let alone in another country.

6           Before we would task our legal folks  
7 with coming up with an answer to that one, we  
8 would want to have some reason to think that that  
9 would be a proper way to go.

10           At this point there does not appear to  
11 be a need to follow up on that because the  
12 transmission options in Mexico haven't been found  
13 to be technically viable.

14           MR. OLSON: Thank you. What I'd like to  
15 do now is go to Bill Powers. Bill, do you have  
16 any comments, recommendations, insights to this?

17           MR. POWERS: Thank you, Tim. Thank you,  
18 Commissioners, for making this trip down to San  
19 Diego to talk to us today. Probably just five  
20 minutes or so of comments.

21           I think that I do want to commend the  
22 2004 IEPR update for establishing the Imperial  
23 Valley study group and the Tehachapi study group.  
24 And my group is now participating both in the  
25 Imperial Valley study group and in the STEP



1 process, because the devil is always in the  
2 details on these types of projects.

3 I will address both these questions that  
4 you have here for transmission. I'd like to start  
5 by a brief overview of my experience with the  
6 Imperial Valley study group.

7 The group was formed almost as the 2004  
8 IEPR update came out. And one of the first things  
9 that came out of that was a guideline that any  
10 transmission looked at would have the capability  
11 to move up to 2000 megawatts of additional power,  
12 which essentially eliminates most options but  
13 large 500 kV lines. And that's an assumption that  
14 I've now been questioning to find out why that --  
15 it doesn't appear in the IEPR. Wherever that  
16 guideline came from, other than a potential  
17 buildout target for geothermal fields in Imperial  
18 Valley.

19 The Imperial Valley study group, you  
20 know, very rapidly we've narrowed down the  
21 potential transmission options to three greenfield  
22 or brownfield, the state says, 500 kV options.  
23 All of which moves through Anza Borrego State Park  
24 on an existing 69 kV corridor.

25 And the focus of the Imperial Valley

1 study group has exclusively been geothermal.  
2 However, the mandate for the group is to look at  
3 both geothermal and renewables, presumably wind.  
4 And I'd like to point out that this is in your  
5 documentation, the California Energy Commission,  
6 SDG&E's renewable procurement plan, which shows  
7 wind at nearly 400 megawatts by 2010, and  
8 geothermal at 73 in 2010, showing wind at a little  
9 over 400 megawatts in 2014, and geothermal 194  
10 megawatts.

11 It would seem, based on the plan, that  
12 we definitely should be considering the wind  
13 resource too in the eastern part of San Diego and  
14 Imperial County. And based on SDG&E's plan,  
15 they're very much focused on that, both in-County  
16 and out-of-County.

17 The point I'm trying to make is that  
18 currently the 500 kV routes that are the only  
19 focus of the Imperial Valley study group at this  
20 point are dozens of miles to the north of the  
21 primary wind resource area on the border. They're  
22 also 500 kV.

23 And what I've included, and I'll provide  
24 this -- I'm just using this to talk off of right  
25 now, but what I passed out earlier to the

1       Commissioners, is that in contrast the Tehachapi  
2       study group has done a superb job -- I included  
3       the cover page and what they call their  
4       transmission collector system -- for that  
5       Tehachapi region. They have done a superb job of  
6       designing a very logical, phased transmission  
7       system to capture the maximum wind potential of  
8       Tehachapi.

9               In contrast, the Imperial Valley study  
10       group has completely ignored the wind resource.  
11       And the current transmission plan that is out  
12       there would actually be a hurdle to tie in wind  
13       resources from the east in contrast to what the  
14       CEC's consultants were pointing out.

15              The Mexican option that we often address  
16       goes right through the maximum wind resource area  
17       in the region. And would be quite easy to tie  
18       into. And I understand that there are some  
19       technical hurdles, but the physical reality is  
20       that line goes through the wind resource area.  
21       And that line is just as capable of moving  
22       geothermal power to San Diego as a brownfield or  
23       greenfield geothermal -- or 100 kV line.

24              Now, we did go on a little expedition to  
25       Anza Borrego State Park last weekend. We meaning

1 the Utility Consumer Action Network, myself,  
2 Sierra Club, to look at the existing transmission  
3 corridor in Anza Borrego State Park, because  
4 that's raised a fair number of alarm bells  
5 locally.

6 And even though the 100 kV line is still  
7 relatively conceptual, as a member of the Imperial  
8 Valley study group, SDG&E has worked out an  
9 agreement with State Parks to use that corridor  
10 for the 500 kV line. So we went to look at it.

11 What's there now, what will we see if we  
12 add a 500 kV line going through the area. And  
13 what you have, there's another set here so that  
14 each Commissioner has a set, is a series of about  
15 a dozen pictures. In every picture that 69 kV  
16 line is present. It's either in the foreground or  
17 the background.

18 And frankly, we couldn't find it when we  
19 went to look at it initially. And then we  
20 realized that it wasn't just telephone poles.  
21 That was the 69 kV line. And it goes right by  
22 Tamarask Grove campground in Anza Borrego. You  
23 can see, there are little notes here that show you  
24 what's what.

25 These poles are 40 foot high; they are

1 mono poles as they go through the back country of  
2 Anza Borrego. You don't see them. They're part  
3 of the background. And what I've included past  
4 these photos is a -- I commented on a 2000  
5 megawatt 345 kV line in Arizona that moves through  
6 national forest. And what I've included in your  
7 packet is a photo of a lattice tower capable of  
8 carrying a 500 kV line that Dave had mentioned.  
9 And also a mono pole tower, which is what's being  
10 proposed or considered in Arizona to cut down on  
11 the visual impact.

12 But I think that the most useful bit of  
13 information are the photo simulations that they  
14 did on the Arizona project, where you can see the  
15 desert country very similar to Anza Borrego; then  
16 you see a lattice tower in the foreground and you  
17 see a mono pole tower in the foreground. And this  
18 is additional photo simulation.

19 The reason I put these photos together  
20 and the reason that we went out there, I think  
21 that the amount of political capital that it will  
22 take to put a 500 kV line through this corridor in  
23 Anza Borrego will be tremendous. And I think that  
24 it's just important to know that upfront, that  
25 this will completely change the character of that

1 corridor in Anza Borrego.

2 And my understanding is that this 69 kV  
3 corridor actually predates the park. It's from  
4 the 1920s. The park was established in the '30s.  
5 I'm not certain of that, but I think it was  
6 grandfathered in.

7 I'd also like to point out that I have  
8 attended the Imperial Valley study group meeting.  
9 I was at the last STEP meeting. And one of the  
10 things that created a little controversy at the  
11 Imperial Valley study group meeting was that the  
12 meeting notes did not reflect a very lively  
13 discussion. As you know, the Supervisor from  
14 Imperial County was there at that meeting, and  
15 he -- when Joe Maruca is in the room, it's usually  
16 a lively discussion.

17 We had many lively discussions. None of  
18 it showed up in the meeting notes, which  
19 precipitated a whole series of emails. And we now  
20 have emails that are far longer than the meeting  
21 notes.

22 I was at the STEP meeting. We had a  
23 tremendous amount of discussion there about these  
24 alternatives. I haven't seen the meeting notes  
25 yet. And I have a feeling they're going to be

1       very brief. But there's a lot of controversy  
2       below the surface that unless you're at those  
3       meetings that you wouldn't be necessarily picking  
4       up.

5               One point on Valley Rainbow is that in  
6       the Valley Rainbow alternatives analysis, SDG&E  
7       did identify this Mexico path as meeting most of  
8       their requirements. The issue in that  
9       alternatives analysis less than two years ago was  
10      the administrative and cross-border regulatory  
11      hurdles of making that happen. It wasn't so much  
12      a technical weakness as it is now being presented.

13             I commend the CEC for underscoring the  
14      Garamendi principles, using existing corridors. I  
15      would contest, though, that that 69 kV corridor  
16      that exists in Anza Borrego, you're really talking  
17      about a goat trail being turned into an interstate  
18      highway. I mean it's a dramatic change for that  
19      environment.

20             And one final -- two final comments.  
21      One is Al Sweedler did point out that the local  
22      planning process is really focusing on inbasin as  
23      our primary goal for generation with selected  
24      transmission upgrades to support that. Not  
25      necessarily converting the region into primarily

1 an importer of power with relatively few local  
2 resources.

3 And just one final comment on the 8000  
4 megawatts of power in Arizona that's waiting to  
5 come to California. It's almost a part of the  
6 local legend that there are dozens of combined  
7 cycle projects gathering dust in the Arizona  
8 desert waiting to jump onto Devers to Palo Verde  
9 II, or onto transmission that we put together.

10 There was a very revealing presentation  
11 given by RW Beck's consultant, who works the whole  
12 STEP region. He pointed out that virtually all of  
13 the combined cycle generation in western Arizona  
14 that Californians presume will be available when  
15 we tie in our power lines is now under long-term  
16 contract in Arizona with no new combined cycle  
17 currently on the drawing boards for that area.  
18 He said you may end up building your line and  
19 having nothing to tie into it.

20 And a lot of interesting things came out  
21 of that STEP meeting that hopefully the CEC can  
22 get a little bit more background on later.

23 Thank you.

24 PRESIDING MEMBER GEESMAN: I think I  
25 would clarify that I do believe our direction to



1 the Imperial Valley study group was a geothermal  
2 focused direction. And I think the number 2000  
3 megawatts is consistent with what we identified  
4 last year.

5 MR. POWERS: It was interesting,  
6 Commissioner, you bring that up, because what I  
7 was asking for when I was speaking to the  
8 moderator of the group was, do you have -- is  
9 there a specific determination that you made to  
10 limit it to transmission opportunities that were  
11 2000 megawatts.

12 And what appears to be more oral history  
13 than it is hard and fast determination to  
14 eliminate options that don't provide that.

15 PRESIDING MEMBER GEESMAN: Could very  
16 well be. And your reference to the Path 45  
17 upgrade as potentially delivering geothermal to  
18 San Diego load center, are you referring there to  
19 Cerro Prieto geothermal or are you suggesting that  
20 it would also be a viable route for Imperial  
21 Valley geothermal?

22 MR. POWERS: I'm suggesting it would be  
23 a viable route for Imperial Valley. On these  
24 series of color figures, the figure number 3 is  
25 the Imperial Valley study group's proposed

1 transmission plan for that area. And they show it  
2 tying in their existing 230 kV. But Path 42  
3 that's moving that geothermal power, they show a  
4 tie-in into the Imperial Valley substation, two  
5 230 kV lines.

6 That would allow power to be moved onto  
7 the southwest power link, on the Path 45.  
8 Actually allow the combined cycle plants in  
9 Mexicali to move power at Path 42 to SCE.

10 PRESIDING MEMBER GEESMAN: Thank you.

11 MR. OLSON: Okay. Alan Sweedler, do you  
12 have any final comments on this panel session  
13 here?

14 DR. SWEEDLER: Thank you. I'd like to  
15 bring the discussion back to the border region,  
16 because that's what's specifically this workshop  
17 is about, and the border chapter input to the IEPR  
18 report.

19 What I'd like to suggest maybe to the  
20 staff, Tim, and consultants, that when you look at  
21 transmission in the border report you consider it  
22 as part of this comprehensive picture that I've  
23 been referring to this morning. And perhaps use a  
24 regional energy strategy which, of course, is a  
25 major part of the border for San Diego as a

1 guideline.

2 And that is after a great deal of local  
3 input, including from Mexico, the view has merged,  
4 or has been incorporated into regional energy  
5 planning, that at least for this region, and that  
6 includes Baja, California, we need a mix of local  
7 generation, unlike the San Francisco case. But a  
8 major part of that mix needs to be indigenous  
9 renewables.

10 We're not advocating building coal  
11 plants, obviously, or more steam generating plants  
12 in the region. But we recognize being completely  
13 dependent on transmission has a lot of down sides.  
14 We already import about over 60 percent of our  
15 electricity as it is.

16 So, a mix of in-region generation, which  
17 on the San Diego side basically as the future  
18 builds out is two major combined cycle plants, and  
19 on the Mexican side on natural-gas fired upgrades  
20 to the Rosarito area.

21 But also a significant amount of  
22 renewables in-region; region being defined as the  
23 full border region. And efficiency and demand  
24 side reduction. But coupled with that is the  
25 recognition of a certain amount of transmission.

1           We specifically did not take a stand on  
2           any particular type of transmission. We left it  
3           generic to give us flexibility. And I think  
4           that's what's really needed now.

5           I would like to ask the staff to look a  
6           little more closely at the possibilities for a  
7           coordinated effort with Mexico on transmission,  
8           notwithstanding some of the technical problems.  
9           Because the technical problems are vis-a-vis a  
10          different set of technical problems for a major  
11          transmission line coming in.

12          And the advantage of that is that in the  
13          renewable study that we are completing, we do  
14          recognize that transmission is going to be needed  
15          for the geothermal in the Imperial Valley, the  
16          2000 megawatts that comes out of our report, as  
17          well, but the wind potential at midpoint to that  
18          is significant, even though it's somewhat  
19          intermittent. And if the solar potential is built  
20          that is a distributed generation issue which  
21          doesn't involve major transmission.

22          So, transmission is needed, both for  
23          renewables and for reliability. But what type of  
24          transmission that needs to be further analyzed.  
25          And there are opportunities, more opportunities

1       for a greater integration in order to tap some of  
2       those renewables in Mexico for Mexico and for  
3       California for -- how shall I put it -- a more  
4       comprehensive transmission planning process,  
5       including the Mexican side of the border. And  
6       that goes back again to how do we do this.

7               But the transmission, just as an  
8       isolated thing, misses the whole point of  
9       comprehensive energy planning.

10              MR. GEIER: Tim, I have one  
11       clarification that may help a little bit. From  
12       some of the most recent work from the Imperial  
13       Valley group, from some of the work Alan's talked  
14       about, there is an additional study that we've  
15       started inhouse, and we're calling it a wind  
16       cluster study, if you will.

17              And I think the focus really was on  
18       those 2000 megawatts in Imperial Valley. But as  
19       we look at, you know, the Crestwood area here in  
20       San Diego and in the area going south there  
21       appears to be a tremendous potential for wind.

22              So we've started a study that really  
23       just truly is getting off the ground now, but look  
24       at how you would connect that region, if it were  
25       to develop. And quite honestly, we have two good

1 options.

2 At the border we have the SWPL line that  
3 goes right through that area. And potentially,  
4 you know, you could tap that line and build a  
5 substation and then take lines out to the wind.

6 You could bring in a line from Mexico to  
7 that substation. You could build a substation on  
8 the CFE 230 line.

9 But I think that we're all sort of  
10 together on this, and as we get more and more data  
11 and we refine the work on the renewable side  
12 probably one transmission line is not the answer.  
13 It's probably a combination. And for the wind, I  
14 think all of us are in agreement that we really  
15 need to address that, in addition to that.

16 And along the lines, I mean there's  
17 really wind, there's central solar that appears to  
18 have a big potential also, which you look back at  
19 our original work with the RFP, maybe it wasn't  
20 identified as -- but I think the technology is  
21 changing now and, you know, and with the ability  
22 to have a transmission line, you may see more  
23 solar, also.

24 So I think all three of them need to be  
25 addressed. I do agree with Bill that we probably

1 focused probably a little bit tighter on the  
2 geothermal. But I just want to make sure  
3 everybody's aware that we are looking at the wind,  
4 particularly in the Crestwood and the mountain  
5 range area. That work's just beginning, but it  
6 does appear to have a lot of potential for the  
7 future.

8 MR. OLSON: Okay, --

9 DR. SWEEDLER: I don't know how the  
10 IEPR, how specific you can or wish to be in the  
11 IEPR report, but I think it would be useful at  
12 least to make the suggestion of a comprehensive  
13 transmission integration analysis --

14 PRESIDING MEMBER GEESMAN: The  
15 Legislature beat you to it.

16 DR. SWEEDLER: Oh, okay.

17 PRESIDING MEMBER GEESMAN: We're  
18 required to --

19 DR. SWEEDLER: -- including Mexico --

20 PRESIDING MEMBER GEESMAN: We're  
21 required to do a strategic transmission plan,  
22 however that is to be defined, --

23 DR. SWEEDLER: Great.

24 PRESIDING MEMBER GEESMAN: -- this year.

25 DR. SWEEDLER: Okay. So that's what

1 would be useful.

2 MR. POWERS: One final comment. This is  
3 from the initial opening meeting of the Imperial  
4 Valley study group. Apparently the name Imperial  
5 Valley study group was chosen to reflect its focus  
6 on the entire Imperial Valley, and all types of  
7 renewable energy within it, rather than just the  
8 Salton Sea geothermal area.

9 PRESIDING MEMBER GEESMAN: Yeah, and if  
10 my memory serves, the name change was something  
11 that we had suggested, as well, to be a broader  
12 geographic grouping. I don't recollect the  
13 broadening to include other resource types. And  
14 my experience with not just that group, but the  
15 Tehachapi group, as well, is that there does tend  
16 to be a certain mandate expansion as time passes.  
17 But it sounds like they started with that expanded  
18 mandate.

19 I'm going to go to blue cards. The one  
20 that I have is Dan Perkins from the Sierra Club.

21 MR. PERKINS: Thank you, Commissioners,  
22 for coming to visit. While we talk about  
23 generation and transmission I think many of us in  
24 this room have participated in the PAG meetings  
25 that have gone on for our statewide energy



1 efficiency programs that are going to be taking  
2 place 2006, '7 and '8.

3 And I see a great potential for being  
4 able to do something in the way of energy  
5 efficiency that could have an impact on the amount  
6 of energy that we need to generate and transmit in  
7 our area.

8 So at the same time that we're talking  
9 about all of this, we need to take into  
10 consideration that number one, I think we can do  
11 something. If we rely on our past experience I  
12 would say you don't have a whole lot to go on, but  
13 I think that there's a lot more than we can do.  
14 And I'm encouraged by some of those programs that  
15 I see stepping up.

16 Thank you.

17 PRESIDING MEMBER GEESMAN: If I could  
18 ask you a couple of questions. My perception is  
19 that Commissioner Kennedy at the CPUC has set  
20 those targets pretty aggressively. And I wonder,  
21 do you share that view? Or do you think that the  
22 targets could have been set higher?

23 MR. PERKINS: The targets are okay; the  
24 implementation, I think, leaves a little to be  
25 desired. I see a lot of programs that have been

1       tried before, and I see a lot of rehashing of some  
2       of those programs. I don't see a lot of new  
3       things that are taking place.

4               But given the resources I think that  
5       private enterprise can step up to the plate and do  
6       a lot in this, as well, utilizing the programs  
7       that have been designed.

8               PRESIDING MEMBER GEESMAN: Well, that's  
9       one of the things that I do think we'll be  
10      revisiting in this report. Our staff will be  
11      providing a forecast of expected electricity  
12      demand, and the contribution of the efficiency  
13      programs that the CPUC has launched. Then we'll  
14      have to make a judgment as to what should be  
15      included in the forecast and what should be  
16      included as other add-on preferred resources.

17              MR. PERKINS: Specifically I can tell  
18      you that there's a tremendous market in  
19      retrofitting existing residential. That market is  
20      much larger than the new residential. There's  
21      been a lot of concentration on that, and feel  
22      comfortable that that's moving along.

23              The same is true with the industrial/  
24      commercial sector overcoming some of the problems  
25      that we have with non-owner-occupied properties is

1 something that we really need to work on.

2 But in the case of residential we're  
3 certainly looking at owner-occupied properties  
4 that the decisionmaker can then do something  
5 positive towards making a contribution to energy  
6 efficiency. And I think that the public, and with  
7 your help with Flex-Your-Power and advertising  
8 that can go on, I think we can do a lot to bring  
9 the level of awareness up that we can make that  
10 happen.

11 PRESIDING MEMBER GEESMAN: Yeah, I think  
12 the state has been slow to join the issue at the  
13 retrofit sector. In 1982 if my recollection is  
14 correct, we fell one vote short on the State  
15 Senate floor in having the Legislature enact a  
16 measure, that the real estate industry actually  
17 supported, to require a certain conservation  
18 retrofit at the time a home was sold.

19 MR. PERKINS: Exactly.

20 PRESIDING MEMBER GEESMAN: And we  
21 haven't revisited that for almost 25 years.

22 MR. PERKINS: -- doing that.

23 PRESIDING MEMBER GEESMAN: I understand  
24 that. I think another area that has caused the  
25 state to be a bit slow in the retrofit sector has

1       been until very recently we've tended to  
2       undervalue natural gas savings. And to the extent  
3       that insulation and building envelope improvements  
4       in the retrofit sector do generate large  
5       quantities of natural gas savings, that hasn't  
6       been as important, from the state's perspective  
7       until recently, as trying to achieve electricity  
8       savings.

9               So there's a lot of work to be done  
10       there. And hopefully this cycle of our report can  
11       address some of the more promising opportunities.

12              MR. PERKINS: And I think at the same  
13       time we should be incorporating photovoltaic on  
14       rooftops at that time of purchase on a home, as  
15       well. And we plan on making that happen, as well.

16              PRESIDING MEMBER GEESMAN: Thank you for  
17       your comments. Anyone else from the public care  
18       to address us before our lunch break?

19              Okay, why don't we take one hour, which  
20       means we'll come back here at five minutes to two.

21              (Whereupon, at 12:55 p.m., the workshop  
22       was adjourned, to reconvene at 1:55 p.m.  
23       this same day.)

24                               --o0o--

25



1 conclude the discussion of the natural gas market  
2 and infrastructure in the border region.

3 National gas demand within the SDG&E  
4 service area is forecast to grow between 1.2 and  
5 1.6 percent. This growth is primarily due to  
6 increased demand from power plants, such as the  
7 Palomar Escondido power plant and the Otay Mesa  
8 power plant.

9 During the same time period demand in  
10 Baja is projected to increase by as much as 7  
11 percent a year; and is driven mainly by  
12 electricity generation and industrial heating  
13 processes.

14 In 2003 the total annual natural gas  
15 demand in SDG&E was 90 billion cubic feet. 52  
16 percent of natural gas demand was from residential  
17 and small commercial/industrial core customers; 11  
18 percent from coal generation and large commercial  
19 noncore customers; and 37 percent from power  
20 generation.

21 As mentioned in the last slide, the  
22 primary driver of demand growth in SDG&E service  
23 area will be from power plants. New power plants  
24 built in this period will significantly increase  
25 demand. However, old plants that are repowered

1 and have higher efficiencies, may produce a net  
2 reduction in demand.

3 SDG&E is the local distribution company  
4 for natural gas in San Diego and Imperial County,  
5 but receives natural gas from Southern California  
6 Gas Company on a wholesale customer basis.

7 This slide illustrates the SoCalGas  
8 pipeline transmission system. SoCalGas imports  
9 approximately 85 percent of its natural gas from  
10 outside the state, as seen by the pipelines  
11 extending from the Arizona border.

12 This system has 3875 million cubic feet  
13 per day of firm receipt point capacity and 105  
14 billion cubic feet of underground storage  
15 facilities.

16 SDG&E receives delivery of natural gas  
17 from the SoCalGas system at the Rainbow and San  
18 Onofre stations, which are located just to the  
19 east of datapoint MM.

20 The total capacity of the SDG&E  
21 transmission system is 620 million cubic feet in  
22 the winter and 600 million cubic feet in the  
23 summer. SDG&E also contracts with SoCalGas for  
24 5900 million cubic feet of underground storage  
25 capacity; however, these storage fields are

1 located outside the SDG&E service area, which  
2 means that peak demand must be met with the  
3 transmission capacity of the Rainbow and San  
4 Onofre pipelines.

5 At this point I'll turn it over to Nick  
6 to talk a little bit about the natural gas in  
7 Baja, California.

8 MR. PUGA: I'm going to talk a little  
9 bit about natural gas demand in Baja, California.  
10 The demand in northern Baja is driven mainly by  
11 power generation. After failed auction of the  
12 Tijuana LDC franchise, the only distribution of  
13 natural gas can be found in Mexicali. It's fairly  
14 small, based on 2003 sales data. The Mexicali LDC  
15 sold an average of 10.8 million cubic feet per day  
16 to all of its customers. So the rest really is  
17 power.

18 This only represents about 4.8 percent  
19 of all the consumption of natural gas in Baja,  
20 California Norte region. Power generation for the  
21 public sector, CFE's own plants, and independent  
22 power production and their contract with CFE  
23 amounted to 140.6 million cubic feet per day, or  
24 63 percent of the average demand for the region.

25 InterGen's Rosita power complex export



1 dedicated capacity, plus Semptra's Termoelectrica  
2 de Mexicali accounted for the remaining 72 million  
3 cubic feet per day, or approximately 32.2 percent  
4 of the natural gas demand in Baja Norte.

5 I prepared this table which shows -- the  
6 data for this table came from the Department of  
7 Energy's exports into Mexico. And you can see the  
8 upper part of the table that starting in 2003,  
9 which would have -- the data that was available at  
10 the time that I prepared this, shows you what the  
11 demand for the Rosarito plants is, which is  
12 equivalent to 77 million cubic feet per day.

13 And the Mexicali load for CFE, the  
14 export plants which are the same for Mexicali, 600  
15 megawatts, which started in 2004 at 53. And then  
16 the total for Baja in 2004 it's 223 million cubic  
17 feet per day.

18 We escalated all those numbers by  
19 matching the demand forecast and estimated load  
20 factors for the plants in their current dispatch  
21 stack. So, this brings it in 2010 to a total load  
22 of 355 million cubic feet per day.

23 PRESIDING MEMBER GEESMAN: Let me ask  
24 you a couple questions, Nicholas. Did you say  
25 that there previously had been a Tijuana LDC?

1           MR. PUGA: No. What happened in 1996  
2           when the Comision Regularadora de Energia decided  
3           to open up gas distribution in Mexico, Tijuana was  
4           one of the potential franchise zones. And they  
5           actually had a preliminary tender offer --

6           PRESIDING MEMBER GEESMAN: Okay.

7           MR. PUGA: -- to auction off the  
8           franchise. What happens is that in the model that  
9           they created they wanted the investors to commit  
10          to serve a certain number of residential  
11          customers, commercial customers, industrial  
12          customers.

13          Because there was no existing  
14          distribution of piped gas to the residential  
15          class, the costs would have been prohibitive. And  
16          CRE decided not to allow a more aggressive pursuit  
17          of strictly large loads. And so it never got  
18          auctioned off.

19          PRESIDING MEMBER GEESMAN: Okay.

20          MR. PUGA: In general, the auctioning  
21          off for the franchise for LDCs in Mexico have been  
22          fairly successful, although admittedly not a  
23          single one has met their goals in gasifying the  
24          residential sector.

25          PRESIDING MEMBER GEESMAN: They're not

1 residential business models as I understand it.

2 MR. PUGA: No. And I guess that brings  
3 me to make a couple of comments -- maybe the only  
4 point I could make -- is all the maquiladoras in  
5 their cluster around Mexicali, Tijuana and Tecate,  
6 along with a handful in Ensenada, there is close  
7 to a thousand maquiladoras in the northern Baja,  
8 California region.

9 And there's significant clusters of  
10 plants in industrial parks that are very close to  
11 the pipelines that run in that area.

12 Well, I'm not exactly sure why this  
13 hasn't happened, but in other parts of the country  
14 there is an industrial area in Durango,  
15 (indiscernible), where the LDC was kind of slow in  
16 extending the grid and providing service to  
17 industries and commerce.

18 And so in Mexico under the current  
19 regulatory model you can apply for a self supply  
20 permit as a transport company. You can build your  
21 own pipe and make your off-takers the partners in  
22 the company, -- own one share. But you can create  
23 a small distribution company, if you will, for  
24 industry.

25 I think this will be ultimately very do-

1       able in Baja, California. It may be just a matter  
2       for the right group of entrepreneurs to come in  
3       and study the loads and start. And I'm pretty  
4       sure the code would allow them to do that.

5               PRESIDING MEMBER GEESMAN: That would  
6       not be covered by the franchise that's already  
7       been auctioned off, for example --

8               MR. PUGA: It never got auctioned off.

9               PRESIDING MEMBER GEESMAN: Okay.

10              MR. PUGA: They called the auction off.  
11       I'm sorry.

12              PRESIDING MEMBER GEESMAN: Okay.

13              MR. PUGA: Because nobody could commit  
14       or nobody would commit to serving the number of  
15       residential customers -- the tender documents.

16              PRESIDING MEMBER GEESMAN: Thank you.

17              MR. PUGA: As part of the preliminary  
18       analysis that we did, and as you very well pointed  
19       out, Commissioner, there is not very much data out  
20       there. We obtained from the Secretary of Economy  
21       in Mexico a list of all the registered  
22       maquiladoras in the country. Pulled the ones from  
23       Baja, California. Matched them to a listing of  
24       large industrial customers that CFE provided to  
25       one of the industrial associations in the area.

1 And came up with this very preliminary look into  
2 the potential.

3 And if you look at the 141 largest  
4 Tijuana electricity consumers by peak demand you  
5 can see in the chart that there are roughly 66  
6 that are larger than 1 megawatt. There are  
7 roughly 72 between 1 and 5 megawatts. And there  
8 is a handful of larger ones.

9 Those larger ones are very large.  
10 Toyota, for example, is a 40 megawatt customer.  
11 So there's a handful of others in the 25s and 12s.  
12 Now, these customers, one thing that struck us as  
13 interesting, was that they had very high load  
14 factors. When I plotted the load factors from the  
15 graph on the right, and you can see that there is  
16 a significant number of this -- I just plotted the  
17 60 largest customers -- and you can see that there  
18 is a significant number that have average load  
19 factors above 60 percent, which would seem to make  
20 them good candidates for self generation. The  
21 investment would pay off.

22 In addition, a lot of these customers,  
23 especially in the food processing areas, furniture  
24 manufacture and paper product manufacturing have  
25 high thermal loads. And they would be

1       theoretically good customers for cogeneration,  
2       good candidates for cogeneration.

3               I guess the issue here would be access  
4       to gas. But as I mentioned before, if somebody  
5       came in and allowed them access by building the  
6       pipe to reach the main transmission pipelines that  
7       are there, that would be do-able.

8               But clearly CONAE, who is the  
9       organization tasked in Mexico with promoting  
10      cogeneration, and has done a nationwide study of  
11      cogen had very little data in Baja, California.

12              I spoke to the FIDE officials and they  
13      would be interested in studying the subject  
14      further simply from the point of electrical  
15      efficiency.

16              And I'm pretty sure CONAE would like to  
17      revisit the subject of the cogeneration potential  
18      in this area.

19              MR. SMITH: Nicholas.

20              MR. PUGA: Yes.

21              MR. SMITH: Excuse me, is there an  
22      upper, is there a cap on the amount of self  
23      generation that's allowed by -- in Mexico, the  
24      self generators?

25              MR. PUGA: Not really. There was a

1 modification to the electrical law that allows for  
2 sale of excess power of your own facility to third  
3 parties that don't have a stake in the plant,  
4 they're not owners of the plant, to 20 megawatts.

5           However, there's no limiting the amount  
6 of a self-supplied corporation and the size of the  
7 plant that they would build. As a matter, there's  
8 some 200-plus megawatt facilities in Mexico that  
9 are strictly self supply for a number of  
10 industrial customers. They wheel across the  
11 country over CFE's grid. And as long as they have  
12 one share of the corporation they're owners of the  
13 plant and therefore they're self supplying. So  
14 there is no limit on --

15           MR. SMITH: So if a company had four  
16 different facilities throughout the country --

17           MR. PUGA: Oh, build a plant in one  
18 place and wheel to the rest.

19           MR. SMITH: Wheel to the others.

20           MR. PUGA: Yes.

21           MR. SMITH: Okay.

22           MR. PUGA: And that is being done.

23           There's many large examples of plants in -- near  
24 cement -- in Mexico, owned by CEMEX and by  
25 Companie (indiscernible), that big mining concern,

1       that do that exactly. The only limitation is to  
2       sell generation if you're not an owner.

3               MR. SMITH: Thank you.

4               MR. PUGA: We were looking at Baja,  
5       California Norte has no gas of its own, no native  
6       gas. So, historically Baja, California Norte has  
7       imported gas from the United States. And that is  
8       still the case today.

9               However, the arrival of projects for  
10       gasification of liquified natural gas is going to  
11       change the picture radically.

12              The project that I show on the bottom  
13       left of the chart is the Costa Azul energy  
14       facility run by Semptra, which is already broke  
15       ground, it's under construction. It has a nominal  
16       capacity of 1000 million cubic feet per day. It  
17       has current storage capacity, and perhaps off the  
18       top of my head I think it's 20 bcf on site, with  
19       room for an additional 20 bcf. And therefore  
20       could double the capacity in a fairly short time.

21              This facility at the 1000 mmcf/d level will  
22       start operation in 2008, late 2008.

23              Several projects have come and gone.

24       The Marathon gas project was called off for  
25       various reasons. The ConocoPhillips project was



1       also not pursued. But currently there are two  
2       other projects that are in various stages of  
3       development.

4               One is the Chevron Texaco Coronado  
5       energy project which has a capacity of 700 to 1400  
6       mmcfd. However, that project has been -- which  
7       had already received an NIS compliance certificate  
8       from SEMARNAT, the Secretaria of the Environment.  
9       Sierra Club and other intervenors filed a  
10      recourse, complaining that SEMARNAT had mistakenly  
11      awarded a certificate of compliance for this  
12      project.

13             The paper, and I have to apologize  
14      because in the editorial process a correction did  
15      not make it to the paper, says that the next step  
16      is to go to federal court and decide whether this  
17      is correct.

18             There's one step missing there which is  
19      the SEMARNAT, itself, has to review their own  
20      process of compliance. And again, either issue a  
21      certificate of compliance or not.

22             The following step, if somebody decided  
23      to pursue it, would be to intervene with the  
24      courts. So I think that we should probably add an  
25      errata to the paper, because there's one step

1 missing. Although I quoted the official in the  
2 Mexican government correctly, but he was wrong.

3 PRESIDING MEMBER GEESMAN: Is there a  
4 time limit for SEMARNAT to reevaluate their --

5 MR. PUGA: Four to eight months.

6 PRESIDING MEMBER GEESMAN: Okay.

7 MR. PUGA: I have the feeling that it  
8 may be difficult to imagine that they would fail  
9 against themselves for awarding certificate. So I  
10 think it will probably stand. In the meantime, by  
11 the way, what the law says is the permit is good  
12 while it's being argued, so --

13 PRESIDING MEMBER GEESMAN: Right.

14 MR. PUGA: -- and --

15 PRESIDING MEMBER GEESMAN: But at the  
16 end of that four-to-eight-months process, you can  
17 anticipate a potential court challenge?

18 MR. PUGA: That would be up to the  
19 intervenors.

20 PRESIDING MEMBER GEESMAN: Right.

21 MR. PUGA: I presume that if they filed  
22 the motion with SEMARNAT they're not going to be  
23 happy by SEMARANT saying yes, we were right, this  
24 complies, right.

25 PRESIDING MEMBER GEESMAN: Yeah.

1           MR. PUGA: So they may file again. They  
2       third project, which is slightly under the radar,  
3       not very many people know or talk about it, is an  
4       interesting project.

5           ENI, the Italian gas conglomerate, which  
6       has in its strategic plan to enter LNG  
7       transportation worldwide, has acquired, through  
8       one of its subsidiaries, Moss Maritime, which is  
9       one of the prevailing designs in the LNG tanker in  
10      the world. They're the ones that have the big  
11      basketballs on the ship.

12           I can't remember, I think 60 percent of  
13      all the ships floating these days, which are 180,  
14      I believe, 167, are under this design.

15           Now, what Moss Maritime has done, they  
16      have created a Mexican subsidiary called Danza,  
17      which has presented an EIS that has been approved  
18      by SEMARNAT, to create a offshore floating  
19      facility based on a converted Moss Maritime ship,  
20      which has already been named, it's identified;  
21      which will make it a very low cost, -- well, it  
22      could be a very competitive option, especially  
23      because of the timing, to an onshore facility.  
24      Although admittedly -- stored, a ship is two to  
25      three times more expensive than an onshore

1 facility. But I haven't seen that, because of the  
2 number of idle capacity, the number of ships that  
3 are idle in various ports in the world, this is  
4 not a bad use for one of those stranded assets.

5 Now, this project has already been  
6 approved by SEMARNAT, but it still has not  
7 obtained a permit from CRE. However, in the  
8 filing with SEMARNAT they are saying they're going  
9 to start operations in 2008.

10 I see it as a very feasible project.  
11 That would put another roughly 300 mmcfs directly  
12 in the back of the Rosarito plant that would  
13 connect to the TGN pipeline. Obviously they will  
14 have to compete for pipeline capacity, but not in  
15 the stretch of pipeline between the Rosarito plant  
16 and the junction to the Gasoducto el Norte. But  
17 beyond there, if it would like to push gas up to  
18 Ehrenberg they would have to compete with the  
19 output of Costa Azul.

20 On Monday I had the chance to see a  
21 paper presented by Semptra that showed that they  
22 were proposing to build another pipeline, a TGN-2  
23 pipeline, connecting to Otay Mesa to supplement  
24 the capacity of the current pipeline connected  
25 there.

1                   And they're also proposing to build a  
2           compressor station right at the border point  
3           between the North Baja pipeline and  
4           interconnection to the Gasoducto Baja Norte.  
5           Clearly this would indicate that they're already  
6           considering expansion of Costa Azul.

7                   We figure right now that after  
8           satisfying local demand, they could still push  
9           about 200 mmcf westward on the Gasoducto Baja  
10          Norte. And obviously good expansion, they do have  
11          additional capacity.

12                   But we're talking in the not very  
13          distant future the possibility of having upwards  
14          of, officially they say that they could double the  
15          capacity of the Costa Azul to 2.5 bcf. And then  
16          you add, assuming that the other 1000 or 1 bcf  
17          Coronado output, plus the Moss Maritime project,  
18          which could get very easily expanded, you could  
19          find in the very near future way upwards of 2 bcf  
20          entering California. That means the potential is  
21          there.

22                   As far as pipeline capacity, and I think  
23          I'll leave this graph up, the one diagram, which  
24          is the following diagram, is actually is an early  
25          proposal of routing for the pipeline between the

1 Costa Azul project and the Gasoducto Baja Norte.  
2 And actually doesn't connect here as shown in the  
3 paper. That may be another errata that I'll have  
4 to file. But it connects roughly at a point of  
5 where the arrow shows the Gasoductor Baja Norte  
6 right here. It's straight south from Tecate.

7 And so this diagram, which you'll find  
8 in the paper, is currently incorrect because the  
9 pipeline routing changed. But this one is  
10 correct.

11 And so very quickly, the Transportodora  
12 de gas Natural, TGN, which we see on the left-hand  
13 side of the map, which is the pipeline that feeds  
14 the Rosarito pipeline from Otay Mesa is a 30-inch  
15 diameter, 23-mile pipeline. And it supplies gas  
16 under a ten-year agreement, Semptra with CFE, to  
17 provide the complete energy supply package to the  
18 plant, including up to 300 mmcf in the U.S.,  
19 purchasing the gas in the U.S., that is, and then  
20 transporting it across the border to the plant.

21 However, in December the contractual  
22 arrangements were changed to provide gas for the  
23 conversions for the Rosarito other units. And so  
24 I'm not completely sure what the terms of that  
25 agreement are, but obviously they extend for the

1 current life of the retrofits in the Rosarito  
2 plants and the Presidente Juarez plants.

3 In addition to that plant, obviously the  
4 most important pipeline probably in Baja Norte is  
5 the 135-mile, 30-inch pipe that goes from the  
6 border west of Mexicali, across Baja and connected  
7 to TGN. This 30-inch pipeline has a capacity of  
8 approximately 500 million cubic feet per day of  
9 gas; and it serves the La Rosita and the  
10 (indiscernible) in Mexicali right here. And some  
11 industrial customers in northern Baja and southern  
12 Baja that -- and southern California, I'm sorry.

13 Toyota is right over here, and that's  
14 another very large off-taker for that pipeline.  
15 And they just began operations last year, I think,  
16 or 2003.

17 I already spoke about the ECO gas, which  
18 is formerly known as (indiscernible). And as I  
19 mentioned they obtained a franchise in 1996. And  
20 they sell fairly small amount of gas, about 10.8  
21 mmcf.

22 I think that probably ends my  
23 presentation, and pass the microphone to Tim.

24 MR. OLSON: Okay, do you have another  
25 slide here, cross-border natural gas issues. Did

1       you want to raise that at this point?

2               MR. PUGA: I apologize, I thought I  
3       was -- okay. We had some cross-border natural gas  
4       issues in our paper that we thought were worth  
5       raising, pointing out.

6               And these basically that there is a  
7       significant pipeline infrastructure that has been  
8       built in Baja to bring U.S. natural gas supplies  
9       to the region. This gas will not only feed  
10      California, but also the Arizona region and some  
11      of the power plants proposed in that area.

12              I spoke about the LNG projects that have  
13      been proposed in Baja and that could also supply  
14      gas to meet demand on both sides of the border.

15              Also the issue that currently there's  
16      some constraints in the capacity of Southern  
17      California Gas and San Diego Gas and Electric gas  
18      transmission systems in order to allow gas to flow  
19      north.

20              And finally the importation of LNG from  
21      Mexico to Southern California Gas would require  
22      improvements of the SDG&E system to reverse the  
23      flow of gas and expand its capacity. But I think  
24      that those considerations have already been made,  
25      at least proposals discussed by the various



1 players in the market.

2 PRESIDING MEMBER GEESMAN: Earlier this  
3 morning you mentioned a 15-year solicitation that  
4 CFE had done for gas supplies.

5 MR. PUGA: Yes.

6 PRESIDING MEMBER GEESMAN: What  
7 proportion of CFE's gas needs at northern Baja  
8 does that represent, that solicitation?

9 MR. PUGA: Out to what year?

10 PRESIDING MEMBER GEESMAN: Well, out  
11 through year 15, unless it trails off pretty  
12 radically.

13 MR. PUGA: No, it will continue.  
14 Roughly, let's see -- well, basically it would  
15 provide for about 250 out of 355.

16 PRESIDING MEMBER GEESMAN: Okay. So  
17 there still is an increment of unmet need in the  
18 CFE plants?

19 MR. PUGA: Yes.

20 PRESIDING MEMBER GEESMAN: Okay. About  
21 a third. Okay. Thank you.

22 MR. OLSON: Okay, now additional  
23 comments here by Eric Knight on some of the  
24 environmental topics. And just a little bit out  
25 of this morning, there were other comments that

1 Eric and some of our staff wanted to make on  
2 environmental topics. They want to just briefly  
3 touch on those right now, as findings from their  
4 environmental report.

5 MR. KNIGHT: In terms of the topic of  
6 air quality, we touched on it earlier this  
7 morning, but I'd just like to go through our key  
8 findings and our suggested next steps in the area  
9 of air quality. And then after that John Kessler  
10 is here to talk about water quality issues, as  
11 well.

12 Air quality in the border region  
13 violates most established ambient air quality  
14 standards in both the U.S. and Mexico for ozone  
15 and particulate matter, PM10. In addition the  
16 Mexican area of the border also violates the  
17 carbon monoxide standards.

18 The airsheds, there are two distinct  
19 airsheds in the border region, and they span the  
20 international border. So neither government is  
21 able to solve the air quality issues unilaterally.  
22 So cooperation between the two countries is very  
23 critical.

24 Looking at the emissions inventory power  
25 plants are pretty small portion of the inventory.

1       It's mostly, the predominate sector is the mobile  
2       sector. And the mobile emissions appear to be  
3       predominately from cross-border traffic,  
4       particularly vehicles idling at the border  
5       crossings waiting for inspections. And we'll talk  
6       about this topic in much further detail. But this  
7       looks like the area where most of the  
8       environmental improvement could be accomplished.

9               Although emissions from the electricity  
10       sector are relatively small compared to the mobile  
11       sector and other sources in the region, power  
12       generation facilities are generally easier to  
13       control. They're large, stationary and well  
14       monitored.

15              Cross-border emissions trading is an  
16       innovative way to improve air quality while  
17       providing for additional infrastructure. There  
18       was a successful cross-border emission trade  
19       between Texas and Mexico that was carried out by  
20       El Paso Electric Company. My understanding is  
21       they required a change to Texas law. And for  
22       something like that to occur in California it  
23       would also require a change to California law.

24              But a recent survey of managers of  
25       Mexican manufacturing plants indicated that

1       there's overwhelming support for a cross-border  
2       trade program.

3               So the staff suggests that the IEPR  
4       Committee consider the following: Participating  
5       in the appropriate air quality working groups and  
6       policy forums of the border 2012 framework, which  
7       could offer the Energy Commission direct contact  
8       with the U.S. and Mexican Federal environmental  
9       agencies with the authority to effect changes  
10      related to other sources of air pollutants,  
11      particularly the mobile sources in the region.

12             And also to evaluate the costs and  
13      benefits associated with cross-border emissions  
14      reduction trading between Mexico and California.

15             PRESIDING MEMBER GEESMAN: I wonder if I  
16      could ask you to do some additional research on  
17      exactly what legal architecture was involved in  
18      the Texas case. Whether there was a federal  
19      waiver required or not.

20             DR. SWEEDLER: I have a little  
21      information on that, Commissioner Geesman. The  
22      Texas arrangement can be used to offset state  
23      standards but not federal standards.

24             PRESIDING MEMBER GEESMAN: Okay.

25             DR. SWEEDLER: It was done with the

1 knowledge of the federal EPA, but it only applies  
2 to meet the Texas State air standards.

3 In California our standards are more  
4 stringent than the federal. So from the air  
5 quality perspective, of course, that would be  
6 better, but we would run up against a little bit  
7 of that issue. Whereas in the Texas case that's  
8 not the case.

9 PRESIDING MEMBER GEESMAN: Right.

10 DR. SWEEDLER: I spoke with some people  
11 at the federal EPA recently. They seem to be less  
12 interested in this whole issue than one would  
13 think.

14 However, since the Texas initiative has  
15 already been put forth, something coming from  
16 California, particularly even though our standards  
17 are stricter, they would certainly be interested  
18 in. And I don't think they'll take the lead it  
19 in, though, I think it has to come from us.

20 PRESIDING MEMBER GEESMAN: Right.

21 MR. PUGA: You asked me a question  
22 earlier which I think I heard incorrectly.  
23 Therefore I answered it incorrectly.

24 PRESIDING MEMBER GEESMAN: Okay.

25 MR. PUGA: The 15-year agreement for

1 supply for 15 years does cover all their gas  
2 needs.

3 PRESIDING MEMBER GEESMAN: Oh.

4 MR. PUGA: So they're completely  
5 covered.

6 PRESIDING MEMBER GEESMAN: Okay.

7 MR. PUGA: And actually -- use and  
8 supply contract, but also includes all the  
9 transportation and logistics of delivery.

10 PRESIDING MEMBER GEESMAN: So the  
11 existing CFE generating plants don't offer any new  
12 market for new LNG?

13 MR. PUGA: No. But the parties to the  
14 contract and the owners of the energy facilities  
15 are the same, so --

16 PRESIDING MEMBER GEESMAN: Yeah. Thank  
17 you, Nicholas.

18 MR. OLSON: Okay, John Kessler from the  
19 Energy Commission Staff. He has some brief  
20 comments on the water, environmental and water  
21 impacts.

22 MR. KESSLER: Thank you, Tim. As we  
23 look at the water supply situation in this part of  
24 the state you can't help but quickly get the sense  
25 that there's a lot to be concerned about.

1           A couple indicators of how dire the  
2       water supply situation is, we've been relying on  
3       the Colorado River supply to our state for almost  
4       half a century. And we were recently cut back by  
5       a million acrefeet. That's about 20 percent of  
6       what we've historically received over the last  
7       half century. And we're going to have to live  
8       within generally a 4.4 million acrefoot allocation  
9       each year unless surplus is available.

10           The Department of Water Resources  
11       forecast from the State Water Project, they're  
12       looking at, in average years, meeting about 75  
13       percent of their contractual obligations. But in  
14       a drought year like 1977, if it were to repeat,  
15       they're looking at allocations on the order of  
16       about 20 percent of those contractual allocations.

17           As we look at some of the future water  
18       supplies that are anticipated to meet the needs of  
19       this area, we're looking at situations where we're  
20       having to fallow agricultural lands. There are  
21       some conservation projects like lining of the  
22       canals and so on; the All American Canal, the  
23       Coachella Canal, that will serve to basically  
24       capture water that's been lost through seepage  
25       over time.

1           But there's also part of the program is  
2       to basically displace agricultural use of water,  
3       which, along with domestic, is considered the two  
4       highest uses in the state.

5           And so our concern is that we not get  
6       into the position where water needs for power  
7       plant cooling when there are reasonable  
8       alternatives that fit the Energy Commission's  
9       policy, is something that is truly feasible.

10          And really, the talk this morning about,  
11       you know, demand side management and energy  
12       conservation, as well as renewables, we see really  
13       makes up a real big part of the picture for the  
14       future to help avoid these impacts on the water  
15       supply.

16          If we look at San Diego County Water  
17       Authority's 20-year projection from current to  
18       2025, they're looking at basically doubling the  
19       amount of recycled water, the treated wastewater  
20       which can be used for landscape irrigation, golf  
21       courses and so on.

22          They're also looking at a new source  
23       which to my understanding has never been tapped  
24       before, for this community at least, been  
25       considered for awhile. But that's desalinizing



1 salt water. And relying on that to the tune of  
2 about 56,000 acrefeet per year. That would be a  
3 project that would be coordinated with the Encina  
4 Power Plant through a reverse osmosis system.

5 So as you look at these indicators,  
6 we're saying, wow, water is really, you know, a  
7 scarce commodity here. And what can we do to  
8 responsibly support the economic growth, the basic  
9 lifeblood needs of this community, this region,  
10 for drinking water and our food production, and  
11 still support the energy infrastructure that we  
12 need.

13 And so as we look at that, you know, of  
14 course there's a lot of leaning on the renewables.  
15 But we also look at some of the alternative water  
16 supply and cooling technologies.

17 And in some communities where reclaimed  
18 water is not currently tapped or expected to be  
19 tapped over the next 30- to 50-year horizon, then  
20 there may be adequate supplies to support the  
21 cooling of the power plant.

22 But we're seeing a growing need and  
23 dependency on recycled water supplies in southern  
24 California, unlike in northern California where we  
25 see situations where there's 100 million gallons

1 per day available in reclaimed water systems from,  
2 you know, some of the Bay Area plants. Well,  
3 that's just not the case down here. There isn't  
4 that kind of surplus available.

5 PRESIDING MEMBER GEESMAN: Well, you  
6 know the two siting cases that I'm most familiar  
7 with in southern California, the El Segundo  
8 project in Los Angeles and the Palomar project in  
9 Escondido, both involved reclaimed water that was  
10 otherwise going out into the ocean.

11 And in both instances there seemed to be  
12 a rather abundance, if not over-abundance, of  
13 recycled water.

14 And my knowledge of the water industry,  
15 particularly in southern California, suggests that  
16 water districts have been struggling for quite  
17 some time to find viable markets for the reclaimed  
18 water. A lot of different potential applications  
19 that could be beneficially used for reclaimed  
20 water, but there does appear in many instances to  
21 be adequate surpluses, at least for today's  
22 generation of plants to provide cooling water.

23 Am I wrong on that?

24 MR. KESSLER: I think it really comes  
25 down to area-specific, you know, depending on

1       which water district. We look to the east with  
2       Eastern Municipal Water District, the Inland  
3       Empire plant there in a situation where they  
4       weren't able to supply all the reclaimed water  
5       that that plant could use initially. And so there  
6       was a transition from fresh to reclaimed. And so  
7       they have that amount of capacity for production  
8       in their system.

9               But, --

10              PRESIDING MEMBER GEESMAN: I think East  
11      Altamont fit the same profile.

12              MR. KESSLER: Exactly. So I don't mean  
13      to overstate that, but I just mean to suggest that  
14      the opportunity to use reclaimed water fits the  
15      policy; it fits the state policy guidance that we  
16      have. But we just need to look at the regional or  
17      the particular area effects of that source of  
18      supply, and that it's not something that becomes -  
19      - and what we're seeing is more of a greater  
20      dependency for that to meet the other needs, to  
21      try to stretch the fresh water supplies even  
22      farther.

23              So as we look at the alternative in  
24      terms of cooling, we look at dry cooling. Our  
25      experience on a couple of cases now is that in

1       some cases it does pencil out to be a reasonable  
2       and comparable cost. And primarily what we see is  
3       where the cost of water supply, in some cases that  
4       includes the cost to fallow the lands, basically  
5       the fee that's paid to the farmers, is something  
6       that if you take into account that annual cost  
7       over time compared to dry cooling which has a  
8       higher capital cost on the front end, that's  
9       something that oftentimes will pencil out to be  
10      relatively about the same costs over the life of  
11      the plant.

12               So, we also see examples of more dry  
13      cooling. Here within this County there's the Otay  
14      Mesa plant. That's in an arid and hot  
15      environment. There's a couple plants in Nevada,  
16      the El Dorado plant, as well as the Moapa Energy  
17      Facility. And both of those are designed with  
18      ambient temperatures as their design point of  
19      something on the order of 103, 108 degrees  
20      Fahrenheit. So they're designed to survive and  
21      produce without a significant penalty from the  
22      standpoint of losing capacity during the hot  
23      temperatures. So, we believe that that's emerging  
24      to be a more viable alternative in terms of  
25      cooling.

1           As we look at our recommendations from  
2       this brief study, as Eric said, he mentioned, and  
3       others have mentioned, participating in the Border  
4       2012 framework. In addition to that we're really  
5       trying to encourage the renewables to the extent  
6       that we can; those are particularly no or low  
7       water, like the wind and the solar photovoltaic.

8           And we also think that the Commission  
9       could consider a policy that would address,  
10      similar to the one that was adopted in 2003, that  
11      applies to 50 megawatt and larger plants, to look  
12      at a policy that would also apply to the smaller  
13      plants. And we could encourage local districts  
14      who are permitting those to consider adopting  
15      those as their own.

16           And there's also a consideration with  
17      the Salton Sea restoration plan. And we just want  
18      to encourage that that restoration be also taken  
19      into account, and mindful as part of our water and  
20      overall environmental planning in this region.  
21      Because that's an important objective  
22      environmentally for the state, too.

23           Thank you.

24           DR. SWEEDLER: Commissioner, if I could  
25      add one comment here to illustrate the incredible

1 complexity and to bring it back to the border, one  
2 would think that using wastewater for plant  
3 cooling makes good sense. Particularly if there's  
4 not a high enough demand. And just dumping it in  
5 the ocean.

6 But when you go across the border it  
7 really gets complicated. And the case in point is  
8 the cooling for the power plants, both the Semptra  
9 and InterGen plants, that do use wastewater. They  
10 clean it up. I've seen, I've been to the plants,  
11 was just there a couple weeks ago, the wastewater  
12 treatment plant is a very modern facility. So  
13 they take this wastewater, reprocess it, ship it  
14 to the plant, where it's cleaner, can be used.  
15 And then the plant puts it into the river, which  
16 is notoriously polluted. So you think this is  
17 great.

18 But, there really is no free lunch in  
19 this whole thing, because the quantity of water  
20 that goes into the river, even though it's  
21 cleaner, is much less because much of it is lost  
22 to evaporation.

23 That diminishes the supply of water to  
24 the Salton Sea. So there's a direct relationship  
25 between the cooling mechanism in Mexico and the

1 viability of the Salton Sea, which goes outside of  
2 just the water districts within California.

3 And somehow we have to figure out how to  
4 incorporate that into planning.

5 MR. KESSLER: And also adding to that,  
6 Salton Sea kind of mass balance to try to maintain  
7 its elevation. They're looking at trying to  
8 manage a smaller, or a lower inflow over time with  
9 the dike structure that would basically separate  
10 the current area into two areas. One that will be  
11 managed as more of trying to maintain a constant  
12 salinity and elevation and support its wildlife  
13 and ecosystem versus one that would be more  
14 flexible in terms of the quality of the water that  
15 it could take, and be more of a salt flat over  
16 time.

17 But there's also contributions that are  
18 expecting to diminish the inflows to the sea over  
19 time as a result of what's going on within the  
20 local water districts, Imperial, Coachella and so  
21 on, with their programs to improve their  
22 irrigation practices and conservation measures.

23 Those inflows, particularly the  
24 agricultural return waters, could be less over  
25 time. And so that's all been part of the mix to

1 try to help manage the Salton Sea restoration plan  
2 that could accommodate an overall kind of new  
3 balance of inflows.

4 I also want to acknowledge a nice  
5 comment we got from Bill Powers in the last week  
6 or so with respect to we've made a recommendation  
7 to acknowledge geothermal as a renewable resource,  
8 which certainly it is an important one.

9 And what we saw in the case of Salton  
10 Sea Number 6 Power Plant is that they weren't  
11 being as consumptive in their planned use of  
12 external water source. And that's primarily  
13 because they're going to benefit of treating and  
14 using their steam condensate for basically all  
15 their cooling. The external water source was  
16 primarily as a wash water and process needs.

17 That's unusual. That's not the pattern  
18 we've seen with the other geothermal plants where  
19 they tend to be more water demanding or consuming.  
20 But what Bill pointed out is that if we don't  
21 replenish the steam field that over time we'll see  
22 it diminish much as we saw the Geysers geothermal  
23 steam field diminish over time.

24 So that's also a "Catch 22" and we  
25 appreciate that comment.



1           MR. OLSON: Okay, I think we'd like to  
2 go back to the natural gas panel now, and I guess  
3 to start off, I wonder, David Taylor is with the  
4 San Diego Gas and Electric Company, and also  
5 representing Southern California Gas Company.

6           And, again, this panel session, we're  
7 interested in your comments, insights, things that  
8 you suggest we revise or correct in our reports.  
9 And any recommendations you might have to us on  
10 addressing the topics that we've raised, or issues  
11 in the issue paper.

12          MR. TAYLOR: All right. Thank you,  
13 first of all, for inviting me here today. I just  
14 wanted to start off by saying that my position  
15 with The Gas Company is over the gas transmission  
16 operations piece. And I also had the pleasure of  
17 operating through the energy crisis.

18          So from my personal viewpoint, having  
19 access to a new supply of gas at the southern end  
20 of the San Diego system would greatly enhance the  
21 reliability of that system.

22          Now, SoCalGas and San Diego both feel  
23 that access to new supplies, wherever they are,  
24 LNG or other sources, greatly would benefit the  
25 customers, both in reducing price volatility, but

1       also supply reliability, in general.

2               We haven't taken a position on any one  
3       project. And as you know there are multiple LNG  
4       projects out there. But the position that we do  
5       take is that if a project is to be built we think  
6       that the customer in California should have access  
7       to it. And we would like to provide that.

8               Now, if LNG is built in the Baja region,  
9       there will be, as Nicholas had pointed out, a need  
10      for some system enhancements through the San Diego  
11      system. The magnitude of those enhancements  
12      really depend on how much supply is destined to  
13      come in at that point. And as yet that has not  
14      been determined.

15              And the main reason is that of the  
16      volumes that they've been talking about for coming  
17      in, exceed that of the demand that would otherwise  
18      be used in San Diego. So there is a need to be  
19      able to move it into the Southern California Gas  
20      system.

21              So, along that end, you know, SoCalGas  
22      and San Diego Gas and Electric have proposed a  
23      framework to support access of these new supplies.  
24      And through that framework is to increase, you  
25      know, customer choice; encourage the development

1 of the new supplies; and make sure that there's  
2 infrastructure adequacy.

3 I'll try to be brief on this, but the  
4 access right now, as you saw from one of the maps  
5 that were put up there, the customers in southern  
6 California have access to multiple supply sources  
7 already. And adding a new supply source we think  
8 will further benefit the customers in this region,  
9 San Diego, as well as the rest of southern  
10 California.

11 The addition of a receipt point has the  
12 capability of increasing the overall receipt point  
13 capacity into southern California; or it,  
14 depending on what type of infrastructure is put  
15 in, could just displace supplies from other  
16 sources.

17 The way that these gas systems actually  
18 operates is you can't bring more in than you have  
19 a place to put it. And so, you know, it won't add  
20 any additional capacity, per se. But it would be  
21 adding more access to that capacity.

22 As you also know, that the gas supply  
23 system or the gas transmission system has access  
24 to the largest storage capacity, underground  
25 natural gas storage capacity in the western U.S.

1       Supplies coming in at any of the access points  
2       would have access to those storage fields. As do  
3       customers across the SoCal/San Diego gas system.

4               Now, I think the point was made, well,  
5       they don't really have physical access to it; but  
6       they do have access through our ability to move  
7       gas around the system.

8               As I said, we are currently in the  
9       process of analyzing, you know, do have  
10      preliminary system engineering on the expansion of  
11      the take-away capacity at Otay Mesa. And just  
12      sort of a final note that these supplies, if they  
13      do come in here, not only have that potential to  
14      serve the load in San Diego, and improve the  
15      reliability of that load, but they also have the  
16      ability to get to other parts of southern  
17      California.

18              PRESIDING MEMBER GEESMAN: Do you think,  
19      in order to make any of these proposed LNG  
20      projects materialize, your company is going to  
21      need to sign long-term take-or-pay contracts?

22              MR. TAYLOR: I can't really comment on  
23      that. I'm on the operations side. I'm not  
24      allowed to talk to that side of the house.

25              PRESIDING MEMBER GEESMAN: Fair enough.

1 DR. SWEEDLER: Well, I think it must be  
2 public knowledge, because it was announced through  
3 the Latin America Energy Conference yesterday, and  
4 Nick was there, the president of Semptra said they  
5 will not build any plant unless -- they won't even  
6 start unless they have firm contracts --

7 UNIDENTIFIED SPEAKER: That's very  
8 true --

9 DR. SWEEDLER: -- as a general business  
10 practice. Am I right, Nick?

11 MR. PUGA: He said that unequivocally.

12 DR. SWEEDLER: Yeah.

13 PRESIDING MEMBER GEESMAN: Yeah, that's  
14 a little different than the question I was asking.  
15 And when Semptra addressed us, oh, it must be a  
16 year and a half ago now, Commissioner Boyd, in our  
17 2003 IEPR process, they made very clear that they  
18 envisioned their LNG project, at least on the west  
19 coast, but I think they're speaking of the Gulf  
20 Coast, as well, as merchant type projects that  
21 would not involve utility ratepayers being  
22 committed to a long-term take-or-pay contracts.

23 DR. SWEEDLER: That is a different  
24 question. What he said is they wouldn't invest  
25 \$700-, \$800-million without having someone to buy

1 the gas. They didn't say who that would be, so.

2 PRESIDING MEMBER GEESMAN: No, he was  
3 emphatic a year and a half ago disclaiming any  
4 intent to have the utility ratepayers subject to  
5 long-term take-or-pay contracts.

6 Who's next, Tim?

7 MR. OLSON: Okay, next we'd like to call  
8 on Carla Garcia-Zendejas from the Border Power  
9 Plant Working Group based in Tijuana. Carla, do  
10 you have any comments, insights, recommendations  
11 for us?

12 MS. ZENDEJAS: Thank you. Thank you for  
13 the invitation and for your continued interest in  
14 getting true and real information for a good  
15 decisionmaking process.

16 Before any more comments I just wanted  
17 to touch on the court challenges with Chevron  
18 Texaco. There are indeed pending, those pending  
19 litigation. And I am sure that even after the  
20 SEMARNAT issues another, or approves of their own  
21 report, there will be challenges to that.

22 And there's also pending litigation with  
23 the Semptra Shell project. That has not been  
24 handled in the press as much as it should be.  
25 There are many cases pending from developers and

1 people in Ensenada who filed and had hoped to get  
2 an injunction to stop the actual construction.  
3 But that has obviously gone forward, but there are  
4 still pending cases.

5 And as far as Moss Maritime in Rosarito,  
6 there are also challenges that I know are going to  
7 be filed or have already been filed by the NGO and  
8 community-based groups and organizations.

9 And that does go to a degree to what I'd  
10 like to address. But just a comment that I  
11 congratulate the staff of the Energy Commission  
12 because this is a very good document. And the  
13 places that I see are not completely addressed are  
14 at least touched on in many cases.

15 And what I'd like to probably see more  
16 clearly or hope to see reflected is that when we  
17 talk about transmission lines, it's very easy to  
18 just say, well, this transmission line, 54, et  
19 cetera. The transmission line is connected to a  
20 power plant. The power plant has to be connected  
21 to a pipeline. And the pipeline has to have some  
22 regasification terminal somewhere, which is going  
23 to be bringing gas in in tankers that are going to  
24 be extracting gas from somewhere around the world.

25 So, it's a complete supply chain that is

1       having effects around the world. And if we  
2       continue to say let's use natural gas because it's  
3       cleaner, and that's it, there are consequences to  
4       other people from beginning to end of this supply  
5       chain.

6               And it's irresponsible in a globalized  
7       world to continue to just say, well, this or other  
8       transmission line is going to be needed, and we  
9       can just change it or use another one. And that  
10      is something that I think that probably the human  
11      factor is what I see lacking to a degree. Because  
12      there are people being affected from point 0.1 to  
13      .100 in the supply chain.

14             And I'd mentioned it before in a  
15      Commission meeting about citizens in Indonesia,  
16      citizens in Russia. And I'm glad to see that the  
17      effects of the pipeline Baja Norte to an  
18      archeological site in Tecate and the devastation  
19      to that are included. Because these are facts.  
20      This is a history we have of pipelines that were  
21      already built in Tijuana, in Tecate, in Baja,  
22      California. This is a history we have as Mexican  
23      citizens of what this infrastructure has meant to  
24      us. And I'm glad that it was mentioned that the  
25      demand for 15 years is such for Comision Federal



1 de Electricidad in Baja, California.

2 Because Mexican citizens in Baja,  
3 California in the beginning were becoming perhaps  
4 alarmed and as far as the security issues, in the  
5 9/11 world, the sabotage of this possible LNG  
6 facility, and the fact that again we are being  
7 considered as a backyard.

8 It's sort of a de facto agreement  
9 between the companies and our government that  
10 these plants are going to be created and the  
11 supply of energy and gas is going to flow like the  
12 air across the ocean. And there are many many  
13 people that do not think that way, from community  
14 leaders, from students, all the way up to the  
15 Senate on a federal level in Mexico.

16 There are Senators calling for repealing  
17 the taking away of the permits that are already  
18 issued for all of these liquified natural gas  
19 terminals today.

20 There are constitutional issues that are  
21 being addressed today as far as hydrocarbons and  
22 Mexicans' power over anything to do with  
23 hydrocarbons and hydrocarbon distribution in  
24 Mexico.

25 There are issues about environmental

1 justice that continue to be put on the table. And  
2 the fact that the plants, the power plants are not  
3 using the best technology that they're going to be  
4 using in California -- in the plants that are  
5 being proposed in California and Oregon.

6 Submerged combustion vaporization will  
7 be used in all of the LNG terminals that are being  
8 projected for California, which means that they  
9 would not use seawater to regasify. But all of  
10 those, save one in Baja, California, would use  
11 seawater, which would completely affect the  
12 ecosystem and I won't go into it, but the  
13 endangered species, whales, et cetera.

14 So, that, the dry cooling, which was  
15 already mentioned, in power plants. Why do we  
16 continue to use water if there is the technology  
17 available not to use it.

18 So that in the recent months, in the  
19 last year, has become very aware to much much more  
20 people and the press, which are finally  
21 questioning prices. If the same company is going  
22 to own the power plant, the pipeline and the regas  
23 terminal, how can we be sure that we will not be  
24 subject to monopoly prices, as Mexican citizens.

25 Because by 2010 California has to

1       achieve renewable goals. So what happens?  
2       Because these plants would go online by 2008,  
3       2007. By then you would have to be very close to  
4       a renewable goal. So what happens after that? Do  
5       we have to abide by created dependence on natural  
6       gas that we still don't have, on another fossil  
7       fuel, as Mexican citizens. We still don't use it  
8       in our homes. How many years would it take for us  
9       to use it in our homes? And will we be subject to  
10      that price manipulation?

11               So all of these issues are social, human  
12      rights, you know, basic issues all across the  
13      supply chain, that are still very much boiling in  
14      Mexico, and they may not be as publicized or as  
15      well known, but they are happening.

16               And those factors have to do with why  
17      (indiscernible) Oil is not in Tijuana anymore; and  
18      Conoco and El Paso Phillips left. And many other  
19      companies are saying I don't want to have to  
20      suffer through this political climate in Mexico,  
21      I'll just go back to Long Beach and see if I can  
22      put that LNG terminal there.

23               So things like that, and decisions at  
24      the CPUC that have bearing on which direction the  
25      gas in the pipeline is going, have direct bearing

1 on what happens in Baja, California.

2 So, it has to be more of a symbiotic  
3 relationship, but we have to take into account  
4 every single part of this very complex problem.

5 Thank you.

6 PRESIDING MEMBER GEESMAN: Thank you for  
7 your comments. I would say, from my own  
8 experience on several siting cases in California,  
9 that dry cooling is not always the environmentally  
10 preferred choice. The resistance that it has run  
11 into in a couple of cases that I'm most familiar  
12 with have been based on a larger footprint on the  
13 land. In other words, it takes a substantially  
14 greater volume of space.

15 There have been concerns about a much  
16 larger visual impact. Local residents don't  
17 generally see that as a favorable feature.

18 And then there have been some  
19 suggestions of noise, although noise in many  
20 instances can be mitigated based on simply  
21 spending more money.

22 But I think that's a site-by-site, case-  
23 by-case determination that needs to be made.

24 I certainly agree with your overall  
25 perspective that it's important to recognize the

1 complexity of each of these seemingly small  
2 decisions to better understand the interactive  
3 effect between decisions on one side of the border  
4 and the ramifications on the other side.

5 So I want to thank you for being here.

6 MS. ZENDEJAS: Thank you.

7 MR. OLSON: Okay, Al Sweedler, do you  
8 have -- we have a few minutes left in this  
9 session.

10 DR. SWEEDLER: I'd like to bring this  
11 back to the IEPR and specific things that might be  
12 included for you to think about including.

13 I think one of the most important things  
14 I heard this afternoon was the answer to  
15 Commissioner Geesman's question about the 15-year  
16 supply for the Rosarito plants.

17 My understanding is, and your response,  
18 was that for the next 15 years there is contracted  
19 gas-through pipelines coming from the north to  
20 supply the needs for the Rosarito expansion.

21 That suggests to me, as you pointed out,  
22 that as far as that huge complex is concerned, is  
23 not going to be an LNG load center. Which  
24 therefore means that we may be seeing a huge  
25 amount, if two plants are built, maybe 2 bcf

1 coming into San Diego, which only has a demand  
2 right now of 600 million.

3 So, there's a enormous potential supply  
4 of gas coming in directly to California. And that  
5 seems to me an issue that's directly related to  
6 the IEPR as far as the supply now. Is that a good  
7 thing or a bad thing?

8 I'll be the (indiscernible) scientist  
9 here. In theory, if you have more natural gas it  
10 might lower prices, although I don't know why  
11 someone would build a plant to sell something at a  
12 low price. But nevertheless, it does diversify  
13 supplies was mentioned.

14 But on the other hand, if you look at  
15 the regional energy strategy, which I keep going  
16 back to, for this region, which is part of the  
17 California process, that amount of natural gas  
18 would be more than enough to meet all the demands  
19 of the two new plants going up in Palomar and Otay  
20 Mesa, and the repowering, and plenty left over,  
21 which would inevitably push out renewable  
22 development. Just because you have this great  
23 supply and you can say, well, what's wrong with  
24 that. After all, it's a free market energy system  
25 if we have the energy.

1                   And the answer to that is we become more  
2                   and more dependent on far-away sources of energy.  
3                   And we lose the incentive to develop indigenous  
4                   supplies, which has a real security basis for it.  
5                   And has some possibility of stabilizing prices,  
6                   whereas if we become only dependent on this  
7                   imported source of energy, we are just completely  
8                   subject, and not just we in San Diego, California,  
9                   southern California where this gas would go, to  
10                  the world price markets just like we see in  
11                  gasoline.

12                 So, in some sense natural gas is a  
13                 bridging fuel. It is better than oil, clearly.  
14                 But it doesn't come free. It still contributes to  
15                 air quality issues, global climate change and very  
16                 importantly, it locks us into a situation where  
17                 we're dependent on a source of energy we have  
18                 absolutely no control over.

19                 So, I didn't quite appreciate the  
20                 magnitude until this came up. I was assuming that  
21                 Rosarito would be a major load center. But now it  
22                 looks, if those numbers are correct, or at least  
23                 reasonably so, that clearly the market for these  
24                 plants is California. And that should at least be  
25                 discussed in the IEPR.

1                   And the other part I'd like to see  
2       discussed in the IEPR, no conclusion again, is if  
3       Carla could supply some very specific details  
4       about these pending lawsuits. Who's bringing  
5       them; what the status; something to reference.  
6       The notion being that there ought to be a little  
7       discussion about the political complexities and  
8       issues facing these plants. Not the company's  
9       conclusion, but just to point out to the reader  
10      that the Commission is aware that these entities  
11      are taking place, and that we, being the IEPR who  
12      commissions it, we are aware, at least, that these  
13      things are there. We don't know what's going to  
14      happen, but we're not sort of going into this  
15      blindly.

16                  MR. PUGA: I did want to clarify  
17      something; it is that the contract that CFE signs  
18      for supply at their gate, and so they just happen  
19      to have thrown in the deal the transportation  
20      contracts that they owned.

21                  But in reality it all nets out. I mean  
22      doesn't matter where -- I mean you cannot trace  
23      one in the pipeline, the green ones and the red  
24      ones. And so what happens is that the gas, by  
25      having an LNG facility, there will no longer be



1 room to bring the gas out from California into  
2 Mexico. The gas will be left from the gas that is  
3 arriving at the LNG facility if, indeed, there is  
4 an arrangement between the parties. And then the  
5 rest that's available for --

6 DR. SWEEDLER: -- the supplier of that  
7 gas has agreed to supply it for 15 years. So,  
8 they have to do that whether the LNG facility is  
9 built or not.

10 MR. PUGA: That is correct.

11 DR. SWEEDLER: So, that's my point.  
12 They have a secure supply of gas. And as far as  
13 the supplier's concerned they'd better get it to  
14 them. And right now they can get it to them  
15 through the north/south link.

16 PRESIDING MEMBER GEESMAN: Well, we're  
17 going to take a fair number of these issues in our  
18 natural gas review. And I think, just speaking  
19 for myself, based on your reports that have been  
20 provided, I think before we got a very good handle  
21 on how much of the LNG brought into Baja is likely  
22 to find its way north of the border, we're going  
23 to need to get a better handle on what the Baja  
24 load will actually be.

25 Whether the CFE resource plan currently

1       has all of the electrical generation that is  
2       likely to be built in the forecast period.  
3       Whether there's additional industrial load, or  
4       based on the data that we have. We've got a very  
5       good handle on the industrial load on the Mexican  
6       side of the border.

7               I would tend to add to your litany,  
8       Alan, a concern with the alternative actually  
9       being coal-generated electricity in the United  
10      States. That's a topic that has received quite a  
11      bit of attention in Sacramento here the last  
12      several months. And a great deal of concern by  
13      those troubled by a prospective climate change.

14             I also think we need to make a  
15      determination as to the likelihood of any of the  
16      north-of-the-border LNG projects actually coming  
17      to fruition, either the Long Beach project or the  
18      two offshore projects that have been proposed in  
19      southern California.

20             I guess finally, and I would challenge  
21      Eric or Bill or any of the others that may want to  
22      submit more detailed written comments on this. I  
23      still fail to see the tradeoff between a  
24      prospective surplus of natural gas backing out  
25      renewables. I don't understand the economics; I

1 don't understand the policy ramifications.

2 I've said before I don't think  
3 California will be able to go any faster on  
4 renewables than the plants that we've articulated,  
5 which is a 20 percent of retail sales target by  
6 2010. And as my Commission and Governor  
7 Schwarzenegger have announced, a 33 percent target  
8 in the year 2020.

9 So I am skeptical that we could  
10 accelerate that pace. I infer from your comments  
11 concern that we may not be able to make those  
12 targets largely because of a prospective surplus  
13 of natural gas. And I just fail to see that.

14 DR. SWEEDLER: I think that's a very  
15 good point, and this is clearly a tradeoff.  
16 Natural gas is, even people when they talk about  
17 putting fuel oil in, which would a worse  
18 alternative, so we compare it to coal.

19 I was referring more to what's happening  
20 in Mexico. I think you're absolutely right about  
21 California. But we have been discussing this  
22 morning about the potential renewable energy  
23 resource in Mexico, and its potential supply for  
24 California.

25 PRESIDING MEMBER GEESMAN: I follow that

1 logic, --

2 DR. SWEEDLER: Okay, so --

3 PRESIDING MEMBER GEESMAN: -- I think  
4 you're onto something there.

5 DR. SWEEDLER: That's where my thought  
6 process was going.

7 COMMISSIONER BOYD: I want to concur  
8 with Commissioner Geesman's concern about nailing  
9 down the Baja demand. Because, Al, I think you  
10 and I have been in multiple fora over the last  
11 many months, and I must admit I've heard different  
12 estimates of the Baja demand practically every  
13 time.

14 Usually when somebody's concerned that  
15 none of the gas is going to be in Mexico the  
16 answer is no, a fairly substantial part is  
17 destined for Mexico. And then when it's north of  
18 the border it's don't worry, it's all coming up  
19 here kind of an answer.

20 So that has been a very illusive issue,  
21 but because you're already touched upon the other  
22 issue that immediately struck me, because we've  
23 heard this continuously, the backout of  
24 renewables. And I'm glad you've now corrected  
25 that to be south of the border.

1                   Because we have the RPS that guarantees  
2                   a very hard target for folks that can't back out  
3                   in California anyway.

4                   PRESIDING MEMBER GEESMAN: Shall we go  
5                   to blue cards? The first one up is Bill Powers.

6                   MR. POWERS: Just very brief. I know  
7                   you want to keep the program moving. I haven't  
8                   seen you since we were sitting next to each other  
9                   at the workshop I'm just about to talk about, is  
10                  we were on the same panel at the CPUC/CEC long-  
11                  term natural gas proceeding workshop in San  
12                  Francisco in December 2003.

13                  And at that proceeding, it wasn't David,  
14                  but another representative from SoCalGas presented  
15                  SoCalGas' projection of gas demand and future  
16                  projection. And it actually looks like this.  
17                  This is now the CEC's projection which shows a 20  
18                  percent drop in gas demand in California over the  
19                  last three to four years. And slowly going back  
20                  up to about 90 percent of 2001 by 2025.

21                  According to David Maul this is probably  
22                  going to be revised further downward based on  
23                  these new efficiency proceedings at the CPUC. So  
24                  I think that's an important context because figure  
25                  3 of the energy supply demand that's in this May

1       2005 CEC document, it's showing a pretty steady  
2       increase of natural gas consumption.

3               This was actually the complaint I had  
4       with much of the CEC documentation over the last  
5       year and a half, it was very similar. But just in  
6       the last few months this is now the data that's  
7       out in all of these public presentations, which is  
8       a 20 percent demand drop in the last four years.

9               The reason that's relevant to the border  
10      is that the domestic demand in Baja right now is  
11      maybe 150 mmcf; that's 2, 2.5 percent of  
12      California's daily gas usage. If our demand is  
13      dropping 20 percent, and their total demand is 2  
14      percent of our demand, and they get their gas from  
15      us or from the north, we really have a lot of  
16      impact on their price envelope based on that.

17              David Maul has also been saying -- I'm  
18      not picking on him, he's the CEC's face on natural  
19      gas -- that California has adequate supplies of  
20      gas for the next ten years without LNG. And that  
21      LNG may or may not modulate price.

22              And that gets me to one point,  
23      Commissioner Geesman, I think is very important.  
24      There is a rehearing challenge in the CPUC  
25      proceeding on gas precisely over the issue of

1 ratepayers taking the bulk of the financial risk  
2 of the projects whether they be in Baja or to the  
3 north.

4 A key element of that proceeding, which  
5 is being contested, is allowing SoCalGas and SDG&E  
6 to permanently terminate capacity contracts with  
7 Transwestern and El Paso Gas Company. And this is  
8 not LNG competing head-to-head in a free market.  
9 This is LNG substituting for domestic gas  
10 supplies.

11 And that created probably the only time  
12 we will ever see El Paso Gas, Kinder-Morgan  
13 Pipeline Company, Transwestern have an informal  
14 alliance with Greenpeace to protest the  
15 substitution of domestic gas supplies with LNG.  
16 And I think that story is yet to completely  
17 unfold.

18 Thank you.

19 PRESIDING MEMBER GEESMAN: Thank you.  
20 Francisco Domez, USEPA.

21 MR. DOMEZ: Thank you. I want to  
22 apologize for awkwardly backtracking from the LNG  
23 discussion, but I thought I could briefly add to  
24 the discussion, the previous discussion on cross-  
25 border emission reduction credits from the federal

1 perspective.

2 As the excellent environmental issues  
3 and opportunities document notes, as defined by  
4 EPA, emission reduction credit must represent a  
5 real -- enforceable, I'd add federally  
6 enforceable, quantifiable and surplus reduction in  
7 air pollutant emissions.

8 Now, the problem for a cross-border, in  
9 a cross-border context with this is that I think  
10 Alan Sweedler referred to it as the white map  
11 syndrome, the U.S. Clean Air Act has a white map  
12 syndrome with regard to anything not within the  
13 United States border.

14 The terms federally enforceable and  
15 surplus in particular can't have an illegal  
16 meaning outside of the U.S. border, in Mexico or  
17 anywhere else. So the ramification of this is  
18 that in order to use cross-border emission  
19 reduction credits to fulfill the requirements of  
20 the federal Clean Air Act, it would be necessarily  
21 at the minimum to amend the Clean Air Act. And in  
22 addition, probably to have some kind of federal  
23 agreement with Mexico or whatever country is  
24 involved.

25 So, in the hope of using cross-border



1 emission reduction credits, would need to be  
2 advanced through both the legislative and  
3 diplomatic arenas in order to take hold.

4 And EPA region IX did fund a small  
5 evaluation study on the feasibility of using  
6 emission reduction credits across the border. And  
7 I'd be happy to pass that on to staff.

8 PRESIDING MEMBER GEESMAN: That would be  
9 very much appreciated. And I take from your  
10 comments that we're probably best off focusing on  
11 the state Clean Air Act and satisfying  
12 California's standards, rather than attempting to  
13 amend the federal Clean Air Act.

14 MR. D YEZ: Possibly. I leave it to  
15 California to (indiscernible) on that.

16 MR. OLSON: Okay, at this point we'd  
17 like to go to our transportation panel. Thank you  
18 very much for our natural gas panel members here.

19 (Applause.)

20 MR. OLSON: And what I'd like to do is  
21 call the panel members up to the -- for  
22 transportation up to our dais over here on this  
23 side. That's Rafael (indiscernible), Greg  
24 Newhouse, Bill Figge, Angela Shaffer Payne, Byron  
25 Wear, Enrique Vallegas (phonetic) and Francisco

1       Domez again from USEPA.

2               So the way we'd like to start this off  
3       is --

4               (Pause.)

5               MR. OLSON: I'd like to start off by  
6       introducing Jim Adams from the California Energy  
7       Commission Staff. He's going to give a brief  
8       overview of the findings of one of the significant  
9       topics of the transportation section of the  
10      reports.

11              And then we're going to ask the panel  
12      members to comment on their views, not only on the  
13      reports, but other things we may have missed or  
14      topic areas they would like to have covered.

15              So, let's start out now with Jim Adams.

16              MR. ADAMS: Good afternoon. Perhaps we  
17      will have a minute here just to get settled. I  
18      think what I'd like to do, refer to the main  
19      points in the executive summary that deal with the  
20      transportation; sort of kind of the highlights of  
21      chapter 4, which does deal with it in much more  
22      detail.

23              In essence we've had a tremendous  
24      increase in cross-boarder movement of goods  
25      primarily by trucks, which carry approximately 98

1       percent of the goods across the border. This is  
2       the result of the NAFTA agreement, and the growth  
3       in maquiladoras south of the border, and the  
4       tremendous commerce that has resulted from that.

5               And this has essentially led to the  
6       situation where we have now, which is a very  
7       congested situation at the border. It's an air  
8       quality impact issue. It's a congestion and  
9       inefficient movement of goods issue. And it's  
10      something that is going to -- could triple by the  
11      year 2030.

12             One of the figures in my analysis points  
13      out that in 2000 I believe it was on the order of  
14      2 million tons a year; and it's going to be like  
15      5.6 million tons if I have that right.

16             One of the things that we've looked at  
17      is the potential for shifting from truck traffic  
18      to increased rail capacity. In addition, there's  
19      an issue with congested ports. There you might  
20      think Long Beach and L.A. are out of the border  
21      area. They are tremendously important for trade  
22      in the border area, on both sides of the border.

23             And, once again, the movement of goods  
24      is expected to double or triple. This has  
25      tremendous implications. Right now they're

1 congested.

2           So we really think that what we're  
3 looking at is recognizing the situation is bad  
4 right now. It's inevitably going to get worse.  
5 And we need to talk about shifting the movement of  
6 goods from something like trucks to rail, or  
7 expanded port capacity, perhaps in Ensenada or  
8 other ports in Mexico, to relieve what is  
9 inevitably going to be essentially a nightmare  
10 situation in terms of getting goods in and out of  
11 the country, particularly -- or California,  
12 particularly since Asia is becoming more and more  
13 of a factor for goods being shipped all throughout  
14 the country, primarily -- or in main part, or  
15 essentially in significant percentage going  
16 through L.A. and Long Beach. So this has  
17 implications for the border area that you might  
18 not think about initially.

19           One of the things that we hope that  
20 comes out of this is more coordination between  
21 California agencies dealing with this issue,  
22 including Caltrans, which we have a representative  
23 today. And also the Baja, California's Department  
24 of Infrastructure, which they have already started  
25 a significant coordination of improvements in

1 transportation issues.

2 But I think more needs to be done. And  
3 we, on staff, are having a more difficult time of  
4 getting information from the Baja side in terms of  
5 we don't have quite the data that we do for north  
6 of the border. And we're hoping we can improve  
7 that as we go forward, because essentially we need  
8 to be aware of what the situation is in both  
9 California and Baja, California. And I feel like  
10 we know much more about California than we do.

11 There's also an issue here related to  
12 airports and aviation transportation of goods.  
13 Once again, L.A. International -- International  
14 have a tremendous amount of volume, as does in  
15 some of, of course, San Diego more locally.

16 And we've made a couple of  
17 recommendations that hopefully we'll hear some  
18 comments on as to how we can try and solve this  
19 problem.

20 And it looks like we're missing Rafael  
21 from the Baja Department of Infrastructure. I  
22 know he had another commitment, I believe, in  
23 SANDAG; so hopefully he can join us at some point.

24 With that, we'll let Tim proceed.

25 MR. OLSON: Okay, and one of our

1 speakers has a short-term travel issue. We're  
2 going to ask her to go first. That's Angela  
3 Shaffer Payne of the San Diego Port District.

4 MS. PAYNE: Thank you very much for the  
5 opportunity to present here this afternoon. We  
6 did provide copies of the presentation, I believe,  
7 for the Commissioners. We did leave some in the  
8 back and it looks like they may all be gone.

9 I'm going to quickly step through this  
10 presentation and then be available to answer any  
11 questions that you may have.

12 Slide 2, we are an agency that was  
13 created in 2003 to operate San Diego International  
14 Airport. At the same time, to look for the  
15 region's long-term air transportation solution.  
16 So I'm going to speak a little bit to that today,  
17 the cargo issue and what we're doing for  
18 improvements both at San Diego International  
19 Airport and searching for a new site in the  
20 future.

21 Slide 3 speaks to some of the congestion  
22 issues that we face today. We are the nation's  
23 29th busiest airport. You see here that we've had  
24 a record year in 2004, actually showing about a  
25 7.5 percent growth rate over calendar year 2003.

1 And we're trending so far in calendar year 2005  
2 for that same growth rate.

3 Next slide, please. So why are we  
4 unique? I think if most of you haven't flown  
5 through the airport, we are located on 614 acres,  
6 really in a bowl -- thank you -- located in a bowl  
7 with a Marine Corps Recruit Depot to the north of  
8 the airfield, the Bay to the south of the  
9 airfield, and rising terrain off the east and the  
10 west end of the airport.

11 To give you an example of how we compare  
12 to other airports, this gives you a comparison,  
13 for example, with Oakland International Airport,  
14 which serves approximately the same amount of  
15 passengers. They have four runways and they sit  
16 on 2500 acres. Tampa serves again a similar  
17 amount of passengers; has a very similar port  
18 structure with they have three runways and sit on  
19 approximately 3000 acres. And as you can see here  
20 we're barely visible within the Denver Airport  
21 boundaries, itself.

22 So what does all this mean for San Diego  
23 International Airport? We've recently completed  
24 an aviation activity forecast that looked at both  
25 our operations, passenger and cargo demand, for

1 the region.

2 We found that really over the next 20  
3 years that the passenger and cargo demand will far  
4 exceed our capacity that we're able to provide at  
5 the current location.

6 Our forecast has been vetted, not only  
7 internally, but also externally, both with SANDAG  
8 and with the Federal Aviation Administration. We  
9 find that we're very much on track with the FAA's  
10 projection of future growth.

11 Passenger airlines currently represent  
12 the primary source of demand for the airport. You  
13 see that almost 90 percent of the operations are  
14 made up of passenger airlines. A very small  
15 percentage of all cargo are civil and military  
16 operations.

17 Annual passengers of SDIA, and I touched  
18 on this just a moment ago, 16.4 million in 2004.  
19 The average annual growth rate for San Diego  
20 International Airport has been 4.9, outpacing the  
21 U.S. average of 3.3.

22 We saw a relatively minor drop off right  
23 after 9/11; quickly bounced back much faster than  
24 most of our partners in the industry.

25 Our passenger growth rate through 2030.



1 We used in our forecast both a high and a low  
2 scenario; between 2.2 and 2.8. And again, as I  
3 just mentioned, the first full year after our  
4 forecast we were at 7.4. That was anticipated.  
5 We do expect that that will slow down slightly.  
6 But what you do see is that by 2030 we're  
7 somewhere between 27 and 32 million annual  
8 passengers on one runway facility.

9 This slide speaks to SDIA's runway  
10 capacity, itself. You see that annual operations  
11 are forecast to reach severe congestion as soon as  
12 2015, between 260,000 annual operations and  
13 300,000 annual operations.

14 Severe congestion, as defined by the  
15 FAA, is where quite frankly you're in a situation  
16 that you're waiting not only before you get onto  
17 the aircraft, but once you board the aircraft  
18 you're waiting somewhere between 15 and up minutes  
19 before you're able to taxi out to the runway and  
20 depart. This has a severe impact to those  
21 passenger and cargo carriers that want to utilize  
22 the facility, as that time is money to them,  
23 certainly.

24 So the current cargo at San Diego  
25 International Airport. Cargo has grown rapidly at

1 SDIA, increasing at an average annual rate of 8.5  
2 percent from 1980 to 2002. We experienced a  
3 slight decrease in 2002 and 2003 in air cargo  
4 attributed to the slower economy and reduced mail  
5 shipments following 9/11. Just simply the tighter  
6 security requirements, mail through passenger  
7 carriers.

8 Expected going forward, though, we do  
9 have an aggressive forecast that shows cargo under  
10 a high scenario growing at 4.8 percent annually.  
11 By the time we reach 2030, needing to accommodate  
12 622 metric tons of cargo under a low scenario  
13 close to 500,000 metric tons of cargo.

14 Although today most of San Diego  
15 International is air cargo transits to Los Angeles  
16 International. And we estimate, I think it was  
17 just mentioned in the opening, that San Diego  
18 County trades at least 62,000 metric tons of air  
19 with Asia every year.

20 This slide here depicts with that  
21 estimate of 60,000 metric tons a year,  
22 representing a little over 3000 truck trips per  
23 year between San Diego and Los Angeles.

24 We see the greatest cargo growth to and  
25 from the U.S., as was mentioned, will be with

1 Asia. And this is the additional metric tons that  
2 are going to be needed as we move forward.

3 So there's potential need for new cargo  
4 gateways. And this slide just simply speaks to  
5 the market, and then the associated airport that  
6 is necessary to accommodate this cargo.

7 So how are we trying to solve this here  
8 in San Diego? We're looking both at the short-  
9 term and the long-term solutions. Immediate needs  
10 are being addressed through our airport master  
11 plan that is insuring that, for at least the short  
12 term, the next 10 to 15 years, we can accommodate  
13 this growth at San Diego International Airport.

14 This process simply speaks to the  
15 different steps that we're using walking through  
16 the master plan, again starting with update to our  
17 passenger and operational forecast; developing  
18 those facility requirements.

19 We're currently preparing cost estimates  
20 and a finance plan that our board will be  
21 reviewing in June, hopefully selecting an  
22 alternative. And then going through an  
23 environmental review.

24 The primary components of our facility  
25 requirements. And this is what it looks like.

1       We're actually proposing, as you see here,  
2       airfield improvements that will include improving  
3       our taxiway position, and remain overnight  
4       parking.

5               This is important, the taxiway  
6       improvements, certainly to our cargo carriers.  
7       Their ability to move quickly through the airfield  
8       and depart; and upon arrival to move quickly to  
9       the air cargo facility is something that is  
10      important to them.

11             We see a lot of -- we hear a lot from  
12      UPS and FedEx in terms of their ability, because  
13      of our departure curfew beginning at 11:30 p.m.,  
14      to get goods out of the southwestern corner of the  
15      United States back to some of their sorting  
16      facilities. And in order to do so we currently  
17      don't have the room to allow those facilities  
18      onsite. So when the cargo reaches the airport,  
19      they need to quickly put it onto the aircraft and  
20      have it leave this airport in order to make their  
21      ontime calls at other places in the United States.

22             UPS had actually told us several years  
23      ago that they find that they take more cargo out  
24      of San Diego International -- or San Diego County  
25      through actually other airports in the country

1       than they do out of San Diego International  
2       Airport. In other words they're trucking more of  
3       their cargo out of San Diego County than they're  
4       actually putting on aircraft out of the County.

5               Terminal facility requirements. You see  
6       here this shows just in terms of where we're  
7       deficient today, and where we'll be through 2030  
8       in terms of our gate requirements. We're  
9       proposing two potential alternatives right now,  
10      either an expansion to terminal one and a smaller  
11      expansion to our terminal two. And then ground  
12      transportation, of course, is an important  
13      component.

14             This is where I think you're most  
15      interested today. We are looking at expansion  
16      opportunities on the general dynamic site to the  
17      north of the airfield; all of the area there  
18      that's shaded in the orange color. That's where  
19      we're looking to expand our cargo facilities.  
20      Currently we have approximately 50 cargo flights,  
21      dedicated cargo flights, a week. Moving forward  
22      we hope to be able to increase that, our runway  
23      really being the most limiting factor.

24             What we've proposed to the north is  
25      being able to provide some of the cargo sorting

1 facilities that we're hearing from the cargo  
2 carriers that they would like to see onsite.  
3 Recognizing that that, too, is with 89 acres at  
4 the former General Dynamic site, does not provide  
5 a lot of opportunity for the facilities. It's  
6 just simply to get us through the next 10 to 15  
7 years.

8 Our site selection program briefly.  
9 We're mandated by law to address the region's  
10 long-term air transportation needs, which, of  
11 course, would include cargo. We're going through  
12 a comprehensive process to evaluate all potential  
13 sites in the County. And even several outside of  
14 the County. And would expect to bring forward a  
15 recommendation next spring for placement on a  
16 County-wide ballot initiative in November of 2006.

17 I would add that we have a technical  
18 document that's associated with our forecast that  
19 speaks more in depth to the cargo needs in San  
20 Diego County, which I provided to staff. It also  
21 can be found on our website.

22 We're in the process of updating our  
23 economic analysis for the airport. Our previous  
24 economic analysis in 2001 actually showed at that  
25 time that over 80 percent of the exports from San

1       Diego County were being exported by truck, because  
2       there simply was not the ability to accommodate  
3       any more cargo through our airport here in the  
4       County.

5               So, as we update that plan or analysis,  
6       rather, over the next month I'd be happy to  
7       provide that to your staff if that provides  
8       additional assistance in preparing the documents  
9       you need to do.

10              I do apologize that I need to leave to  
11       go to another meeting, but I'm happy to answer any  
12       questions you may have.

13              PRESIDING MEMBER GEESMAN: I take it the  
14       announcement recently from the Base Closure  
15       Commission took several of your site options off  
16       the table?

17              MS. PAYNE: We did have five military  
18       installations that were being considered. We'd  
19       actually not studies those installations since  
20       2003, awaiting the base realignment and closure  
21       process. Our board has not yet provided us policy  
22       direction, if those sites will just be summarily  
23       removed or if they would like us to do any  
24       additional analysis with those sites.

25              So we're waiting some future direction

1 from our board.

2 PRESIDING MEMBER GEESMAN: And are some  
3 of the remaining sites that are under  
4 consideration being looked at as potential cargo  
5 only airports?

6 MS. PAYNE: When we started this process  
7 actually several years ago, we looked at each  
8 potential airport site. And at that time we  
9 started with 32 in the region.

10 And we looked at their ability to  
11 perform as commercial only, as cargo only. We  
12 really had come to the conclusion that we didn't  
13 feel a cargo-only airport would provide the relief  
14 that is needed for both SDIA or moving forward,  
15 taking the brownfield initiative that had gone  
16 forward several years back. We didn't feel that  
17 the airport authority could support a cargo-only  
18 airport proposal again because we were looking at  
19 it more globally from the passenger and cargo  
20 perspective.

21 Today it would be -- we're not studying  
22 the all-cargo option. Certainly if something  
23 would present itself, we'd be willing to talk  
24 through that. But it's not something that's part  
25 of our analysis today.



1                   PRESIDING MEMBER GEESMAN: Yeah, and I  
2           would suggest that your slide 8 seems to bear that  
3           out pretty clearly.

4                   MS. PAYNE: Yes.

5                   PRESIDING MEMBER GEESMAN: Thank you  
6           very much.

7                   MR. ADAMS: Angela, I had one other  
8           question. I read someplace that there was a  
9           comparison between sort of energy efficiency  
10          moving goods by truck versus aviation versus  
11          railroad. And I just wondered if you'd done any  
12          research on that, or had something you could  
13          offer?

14                  MS. PAYNE: Offhand, a document doesn't  
15          come to mind. I could certainly go back and see  
16          what, someone on our planning staff might have  
17          some better information for you. I don't have any  
18          statistics that I can offer you today in terms of  
19          a comparison between the three types.

20                  MR. ADAMS: I would appreciate it,  
21          because I think I remember reading something along  
22          those lines.

23                  MS. PAYNE: Okay.

24                  MR. OLSON: Okay, I'd like to introduce  
25          the next speaker. Bill Figge is a representative

1       here of the Caltrans District 11. And, again,  
2       from all the panel members, we'd like to hear  
3       comments, insights, recommendations to us on  
4       either what we presented in our report or things  
5       we omitted, or just your recommendations overall  
6       on some of the topics we're discussing.

7               MR. FIGGE: Thank you. I have with me  
8       also Sergio Pallares from our international border  
9       studies branch from Caltrans, as well, to answer  
10      any questions that might come up.

11             I have a little presentation to go  
12      through. I wanted to give you kind of an overview  
13      of the border from a transportation perspective.  
14      It will be fairly quick. I'm sure you've seen  
15      quite a bit today, but I think we can look at it  
16      from three angles.

17             What we'd like to do is look at first a  
18      very quick view of international trade coming  
19      across the border. Kind of give you a sense of  
20      some of the numbers that have been discussed,  
21      especially in terms of the truck traffic.

22             Then a little bit of a overview of the  
23      ports that we have here in San Diego and Imperial  
24      Counties, crossing into Mexico; and the  
25      transportation infrastructure that's associated

1 with those.

2 And finally, in the end, just a little  
3 touch on some of the border-wide issues from a  
4 planning perspective that we're working on, and  
5 kind of where we see border transportation and  
6 infrastructure planning heading.

7 The border region, as we call it, the  
8 border region for many of the reasons that you've  
9 all been discussing here today, I suspect, is we  
10 share a 150-mile-long border between California  
11 and Baja, California. And that region has a  
12 population of 5 million right now, with an expect  
13 growth to over 8 million by 2025.

14 And it is a region in all senses of the  
15 word, as you've been discussing, in terms of air  
16 and water and energy and transportation. And just  
17 from a general societal standpoint, the  
18 interconnectedness of the region is growing all  
19 the time to where that border is becoming less and  
20 less of an issue, I think.

21 This next slide gives you just a sense  
22 of the numbers of people crossing and vehicles at  
23 the two largest ports in California, San Ysidro  
24 and Calexico. And these are numbers that are in  
25 millions. Obviously San Ysidro is quite a bit

1 ahead of Calexico, but there are significant  
2 numbers of people crossing in both locations.

3 This is an illustration of how truck  
4 traffic has grown in terms of the value of the  
5 goods that have been transported. It's in  
6 billions of dollars. You can see since NAFTA has  
7 passed, we're up around the \$30 billion mark in  
8 terms of truck traffic.

9 We show truck traffic because as Jim  
10 mentioned, trucks represent 98 percent of the  
11 means of transporting goods back and forth across  
12 the California/Baja, California border. We have  
13 about 2 million trucks crossing a year right now,  
14 and we expect that to grow to almost 5.5 million  
15 by the year 2030.

16 PRESIDING MEMBER GEESMAN: How do you  
17 attach a dollar value to that trade?

18 MR. FIGGE: It's based on interviews  
19 that we've done and information that comes from  
20 the customs and border protection group.

21 This slide gives you a sense of where  
22 those goods are being destined for, or  
23 originating. The key point here I think we want  
24 to make is that it's both a state and national  
25 issue in terms of the goods movement.

1           The middle arrow talks about goods that  
2           are basically originating or have destinations in  
3           San Diego or Imperial Counties. So they count for  
4           just 22 percent of the total.

5           A similar amount, about 21 percent, is  
6           headed for out of the State of California. That's  
7           the arrow that goes off to the right.

8           And then the one to the left shows that  
9           fully 57 percent of these trucks are destined or  
10          have an origin within California other than in San  
11          Diego or in Imperial Counties.

12          This gives you an idea of where they are  
13          destined within California. And you can see that  
14          the majority of trucks within California, either  
15          origin or destination, most of them are in the  
16          southern part of the state. And I think this is a  
17          significant point in terms of looking at  
18          potentially shifting it to rail. It's a fairly  
19          short trip for most of these trucks. And it might  
20          be, from the way rail companies operate and the  
21          way shippers look at things, this is a -- might be  
22          a bit of a difficult nut to crack in terms of  
23          trying to shift to rail due to the shortness of  
24          the trip.

25          On the other hand there may be some more

1 potential for the goods that are destined for  
2 outside the state. You can see they do travel all  
3 over the country. And clearly there's a national  
4 and even international piece to this trade that  
5 might have a little higher probability of looking  
6 at rail as an alternative.

7 Just wanted to give you a quick sense of  
8 our Caltrans District 11, why we have the border  
9 issues for Caltrans. Our two counties are San  
10 Diego and Imperial, which basically abut the  
11 border throughout the entire state.

12 There are six ports of entry currently.  
13 San Ysidro is the furthest one on the left. Otay  
14 Mesa is the one after that. The red one is Otay  
15 Mesa East, which is a proposed port of entry that  
16 I'll talk about a little bit in a minute. Then at  
17 the middle of the San Diego County area there is  
18 Tecate. And then in Imperial County, Calexico,  
19 Calexico East and then Andrade over on the Arizona  
20 border.

21 I've got a list here, just the ones I  
22 just mentioned, and then also I'll be talking a  
23 little bit about the roadway infrastructure that  
24 serves and supports those ports of entry in  
25 California.

1           San Ysidro is obviously the largest  
2       port. It's known as being the largest land port  
3       of entry in the world in terms of the number of  
4       crossings that occur. It has a large vehicular  
5       component. But there's also a lot of people that  
6       cross as pedestrians, or using bicycles, and  
7       connected both ends with other modes of  
8       transportation. And there is a rail connection in  
9       the San Ysidro area, as well.

10           This kind of gives you an overview of I-  
11       5 as it crosses into the San Ysidro Port of Entry.  
12       One of the main transportation improvements we're  
13       talking about is shifting the southbound lanes a  
14       little to the west, creating a new crossing there  
15       that would allow us to use the existing southbound  
16       lanes to convert them to northbound lanes, so we  
17       would have a much larger footprint for processing  
18       vehicles as they come across the border.

19           This is a project that's being looked at  
20       from most of the agencies that are involved. It  
21       probably has a rather high price tag. We don't  
22       have funding for all this yet.

23           And one of the aspects of any kind of  
24       border port of entry improvements are the ability  
25       to operate it. And we can build additional booths

1       for inspection, but obviously there needs to be  
2       staff and resources available to operate those  
3       booths.

4               DR. SWEEDLER: Excuse me, the number,  
5       these 17.9 port of entry, that's from Mexico to  
6       the U.S., right?

7               MR. FIGGE: Yes, --

8               DR. SWEEDLER: So you're not counting in  
9       those statistics from the U.S. to Mexico, which  
10      are about the same size. So they're really double  
11      what we're looking at.

12              MR. FIGGE: That's true.

13              DR. SWEEDLER: Is that right?

14              MR. FIGGE: Yes, that's a --

15                      (Parties speaking simultaneously.)

16              DR. SWEEDLER: Okay, because that looked  
17      very low, so in terms of energy and air quality,  
18      we want to be looking at all the traffic going  
19      both ways, I would imagine. Okay.

20              MR. FIGGE: Yes. Otay Mesa point of  
21      entry is the main gateway for commerce in the San  
22      Diego metropolitan area. All of the commercial  
23      traffic in the San Diego area goes through Otay  
24      Mesa that's not processed at San Ysidro.

25                      We recently have seen some improvements



1 in terms of providing fast lanes for the  
2 processing of trucks in a more quick manner. But  
3 Otay Mesa, as San Ysidro, still experiences  
4 significant amounts of delay due to the congestion  
5 from the frequent use that we have there.

6 Looking at the Otay Mesa port of entry  
7 from a transportation perspective, it's currently  
8 served by, you see the 905 at the top. That's an  
9 existing city arterial basically that we're using  
10 as a state highway to connect to the Otay Mesa  
11 port of entry. It's a city street with traffic  
12 signals and left turns and lots of vehicle use.

13 The proposal is to build a freeway  
14 connection from 805, which is the first freeway  
15 you will come to as you go to the west, to the  
16 Otay Mesa port of entry. That project's about a  
17 \$300 million project. We have most of the  
18 funding, but have not been able to identify enough  
19 to complete the project. We're looking at ways to  
20 be able to build it perhaps in segments, or find  
21 other ways to get that accomplished. But it's a  
22 significant transportation improvement that's  
23 needed for that vicinity.

24 One of the other significant ones that's  
25 occurring is to the north of here. There will be

1 a new toll road built called SO-125. It's  
2 actually under construction right now, and will  
3 provide access from the 905 freeway north into the  
4 San Diego metropolitan area, which will provide  
5 another north/south route for the people using the  
6 border here.

7 I mentioned the future Otay Mesa East  
8 port of entry. This is one, there's a lot of  
9 potential improvements and new crossings over the  
10 border that I'll talk about a little bit later,  
11 but this is the one that has probably the most  
12 momentum at this point.

13 At the Otay Mesa border crossing we've  
14 had about 1.3 million crossings in 1999, and  
15 that's expected to continue to grow to 2.1 million  
16 by 2010. We will need to be looking for ways to  
17 accommodate this growth. And one way is to look  
18 at another port of entry to the east.

19 This shows you some of the improvements  
20 that would be necessary on the Mexican side of the  
21 border in terms of transportation access. And we  
22 would have to be doing some more things on the  
23 U.S. side; extending the 905 freeway easterly  
24 under a new route called SO-11, that would connect  
25 into this. Currently there is no transportation

1 infrastructure in that vicinity.

2 Just taking a quick mention of the  
3 Tecate port of entry. Tecate is served by a two-  
4 lane state highway that goes to kind of the  
5 mountains east of San Diego, ends up on route 188  
6 to the border there. Tecate has recently improved  
7 the entire port facility and built an interim  
8 CVEF, which is a commercial vehicle enforcement  
9 facility. I wanted to just mention that, because  
10 California does have CVEFs at the three main  
11 commercial crossings. We have the Otay Mesa,  
12 Tecate and in Calexico East.

13 And this is a facility that allows for  
14 trucks to be inspected for safety and to some  
15 extent for their air quality as they come across  
16 the border. So we have the ability to inspect  
17 vehicles and make sure they're safe when they come  
18 across.

19 This is the new port there, after taking  
20 away the little yellow overlay. And the temporary  
21 CVEF is in place, and then we will be building a  
22 new permanent facility there that's about a \$17  
23 million project that we have received funds from  
24 the federal government to do that with.

25 Calexico is in Imperial County. It's

1       been the traditional point of entry between  
2       Mexicali and Calexico. There's about 17 million  
3       person crossings at this location in 2003.  
4       Calexico, the port of entry is at the end of state  
5       route 111, which is at this point a main street  
6       through the downtown portion of Calexico.

7               There isn't commercial traffic at this  
8       location at this time. It's been moved to the  
9       east, to Calexico East. But there is significant  
10      congestion in vehicular access at this point.

11             We are discussing with a number of  
12      agencies how to improve the situation at Calexico  
13      by maybe making access via a road to the east --  
14      to the west, rather, that would get it out of the  
15      downtown. And that's something that's kind of in  
16      its early stages of discussion.

17             PRESIDING MEMBER GEESMAN: Is that 17  
18      million number also just a one-way number?

19             MR. FIGGE: Yes. This is Calexico East.  
20      Calexico East is the main commercial facility for  
21      the Imperial County area. It's fairly new. It  
22      was built in a greenfield environment, a true  
23      greenfield environment, agricultural area that was  
24      converted to this use.

25             We've built a new state highway to serve

1       Calexico called route 7. It's been built in two  
2       pieces. The second piece, which represents an  
3       investment of about \$65 million, is set to open  
4       this month, which will connect the Calexico East  
5       port of entry directly with interstate 8 in  
6       Imperial County, so it will have a full four-lane  
7       expressway facility from the port to the freeway.

8               I just wanted to give you a quick view  
9       of what we call the NAFTA network. We've looked  
10      at all these transportation pieces over the years,  
11      and defined them as the NAFTA network. And that's  
12      the blue lines that you see there.

13             Some of those are existing facilities  
14      and some are new facilities. But they are  
15      basically our vision of what's necessary to  
16      accommodate the goods movement, particularly that  
17      comes across the border into California or goes  
18      from California into Mexico.

19             Looking at San Diego County you can see  
20      the routes I was talking about at the border  
21      between San Ysidro and Otay Mesa on the bottom  
22      left-hand of the screen there. That's route 905,  
23      the freeway connection. It would be continued  
24      past 125 to the red dot showing where Otay Mesa  
25      East would be built via state route 11.

1                   And then going directly north from the  
2           Otay Mesa East port of entry you see the 125 toll  
3           road project. The other roads are existing roads,  
4           but they're being improved as part of the overall  
5           transportation improvements for the San Diego  
6           area.

7                   The red designates those pieces that are  
8           basically new facilities that we were talking  
9           about.

10                  Looking at Imperial County, Calexico and  
11           Calexico East are the two port of entries shown in  
12           the middle. The red pieces are route 98 from  
13           Calexico to Calexico East is a two-lane facility  
14           most of the way. We look to improve that to at  
15           least four lanes. And then the north/south route  
16           is route 7 going directly from the Otay Mesa East  
17           up to interstate 8.

18                  So we'll have that complete here  
19           shortly. The route 98 piece hasn't been funded.  
20           We can see route 111 which runs directly from  
21           Calexico north to Brawley. That is one of the  
22           projects that we got started on earliest, and it  
23           now represents a four-lane expressway from  
24           Calexico all the way to Brawley.

25                  The significant pieces that we need to

1 complete are extension of 7 north, and then around  
2 Brawley in what we call the Brawley bypass. So  
3 that right now we have trucks on that four-lane  
4 facility on 111, and they come into Brawley and  
5 they go through the middle of town on the main  
6 street. And so the idea will be to build a four-  
7 lane expressway so that all trucks would be able  
8 to use that type of facility from Calexico East  
9 all the way through Imperial County. And as you  
10 saw, there was a great deal of truck traffic that  
11 moves up into the Riverside/Los Angeles areas.

12 The cost of the NAFTA network is between  
13 \$1.5 and \$1.7 billion dollars, depending upon the  
14 availability of funds that we have programmed but  
15 are not necessarily available to us. The  
16 shortfall for those projects at this point is  
17 between \$5- and \$600 million.

18 Just wanted to touch on some of the  
19 activities that we've been doing, that Caltrans  
20 has been involved in. Looking at planning issues  
21 from a transportation perspective. There's lots  
22 of groups that are involved in planning and  
23 working together with our federal partners and  
24 with local and regional agencies, as well as our  
25 counterparts on the Mexican side.

1           Caltrans participates in these  
2       organizations at various levels, mostly our  
3       district here represents Caltrans in terms of  
4       transportation improvements for the state on these  
5       types of groups.

6           I also wanted to touch on some of the  
7       facts that we have in this report and that we also  
8       have displayed in other places. Come from various  
9       studies that have been funded, from state and  
10      federal sources. We've looked at a number of  
11      different surveys and transportation studies that  
12      have really given us a pretty good handle on some  
13      of the needs and issues that we have at the border  
14      that provide us with a significant level of  
15      information that allows us to do our planning.

16           There are some additional tools that  
17      we've been working with, GIS type systems, and  
18      working on looking at kind of short-term  
19      improvements on what we call bottlenecks that  
20      might be able to be resolved fairly inexpensively,  
21      that provide some immediate benefit, that maybe  
22      not are long-term solutions.

23           And looking at our cross-border models  
24      so that we can anticipate what the future travel  
25      demands are going to be.



1           The key for us right now is looking out  
2       for long-range activities. This is a listing of  
3       various potentially new crossings of the border  
4       that we're aware of, and there may be others that  
5       are out there. All different agencies, different  
6       people, different points of view, come forward  
7       with good ideas to look at what needs to occur to  
8       facilitate the border crossing. And you can see  
9       that there's a lot of potentials out there.

10           I think most of the agencies that are  
11       involved with border planning, as well as  
12       ourselves, have come to the conclusion that we  
13       need to be looking for that long-range kind of  
14       viewpoint. And figuring out just how to judge  
15       these things; what our needs are; where should we  
16       be expending the resources that we have that can  
17       be done in the best way possible.

18           So that's our focus, is to work with the  
19       other agencies involved in border planning at this  
20       point. And begin to assemble some sort of master  
21       plan that we could all be working together with.

22           In conclusion, the -- no doubt  
23       experienced today, there are many different  
24       agencies involved in border planning; many  
25       different companies and private sector, public

1 sector, environmental groups. It's a very  
2 complex, very involved area to work in.

3 And I think the more communication like  
4 this that occurs the better off we are in terms of  
5 trying to find commonalities.

6 The other point I guess we're making is  
7 that the border infrastructure is not fully  
8 funded, and there is needs for additional funds to  
9 be able to do the things that we see need to be  
10 done in the short term, as well as the long term.

11 And then finally I think energy is an  
12 area that we should pursue more discussion about.  
13 I think it's something that we've not really had a  
14 great focus on from the transportation side in the  
15 past, and this is an opportunity for us to do  
16 that.

17 So I thank you very much.

18 PRESIDING MEMBER GEESMAN: Thank you.

19 MR. FIGGE: I'd be happy to answer any  
20 questions.

21 PRESIDING MEMBER GEESMAN: I appreciate  
22 you being here.

23 MR. OLSON: Okay, the next panel member  
24 I think we'd like to hear from is Greg Newhouse,  
25 who wears several hats here. He's also a former

1 Energy Commission Staff.

2 And he listed as the San Diego Area  
3 Clean Cities Coordinator, but I know he -- several  
4 other things. He's a representative of San Diego  
5 Miramar College, also. So, Greg, if you have any  
6 questions, comments, your insights. You have a  
7 presentation, also, right?

8 MR. NEWHOUSE: Well, I have a  
9 presentation, but I think for the sake of time  
10 I'll forego running through that as a PowerPoint.  
11 I think it's been passed out to most people, so  
12 I'll just hit some of the key topics there that  
13 I'd like to address.

14 First is to add to a comment earlier  
15 today that Dr. Sweedler made. I think agreements  
16 and involvement in organizations is great. But I  
17 think organizational involvement in the border  
18 region is literally crucial for the Energy  
19 Commission to consider and to look at.

20 What we're really looking at is issues  
21 and problems that have developed over a long  
22 period of time. They're going to continue to  
23 become more intense over the next years, as your  
24 staff report has indicated. And we're really  
25 looking forward to a consistent and committed

1 involvement in energy issues in this region.

2 I think it's almost along the line of,  
3 for those of you who are involved in  
4 transportation alternative fuels, the type of  
5 effort that the Energy Commission put out in  
6 regards to pushing, if you will, methanol in the  
7 '80s. And just its commitment and almost tenacity  
8 in doing that, that that's the type of involvement  
9 and commitment that I think is critical from your  
10 agency in terms of being involved in border energy  
11 issues.

12 Along with that, and kind of wearing the  
13 hat as an Associate Dean of Miramar College, I  
14 think any involvement in energy issues in this  
15 region, particularly in transportation, involve a  
16 key commitment to education.

17 We partner in our automotive program  
18 with Toyota. Toyota made a decision a few years  
19 ago to make a substantial push into the Mexican  
20 market with its vehicles. It has requested from  
21 us that our faculty spend time in Mexico actually  
22 training their counterparts at community colleges  
23 there, so you have technician development in the  
24 Mexican various areas, so that the dealerships  
25 there can actually fully repair, take care,

1 maintain the vehicles that come to those  
2 dealerships, and to take care of the new  
3 technology that comes into those regions.

4 So I would urge you that when you're  
5 looking at any technological change you put that  
6 hand-in-hand with educational change to go along  
7 with it.

8 The final point is kind of twofold.  
9 What I would like to offer you in the alternatives  
10 fuels area is kind of a practical and a long-term  
11 solution. On the practical side in your work with  
12 the California Air Resources Board, amongst other  
13 things you identified diesel fuel alternatives.  
14 Fischer Tropsch was one of the fuels that you  
15 identified as a key possibility in a diesel market  
16 for heavy duty vehicles.

17 And I would say that's a great fuel to  
18 pursue. It's not here right now. And I think one  
19 of the things that we need to look at in the  
20 border region again is going back to consistent  
21 and continual improvement and change.

22 I would encourage you to look at  
23 biodiesel as a precursor to your decisions in  
24 regard to Fischer Tropsch. I know there's NOx  
25 issues, nitrogen oxygen issues -- excuse me,

1       nitrogen oxide issues associated with biodiesel.

2               So I would suggest that when you look at  
3       a practical alternative there, a 2 to 5 percent  
4       blend in using biodiesel and getting that into the  
5       diesel fuel arena starts you on a path of reducing  
6       particulates, reducing toxic emissions, while not  
7       having a substantial impact on nitrogen oxide  
8       emissions.

9               It allows you also probably a good way  
10       to make changes simply in the culture, if you  
11       will, in the transportation arena to do something  
12       different than what is normally undertaken.

13              Biodiesel also can work well with ultra  
14       low sulfur diesel as a lubricity factor for ultra  
15       low sulfur diesel. So it goes hand-in-hand with  
16       the introduction of that fuel.

17              If you go back to the Fischer Tropsch  
18       example or option that you all have talked about  
19       before, there's some studies at the National  
20       Renewable Energy Lab that show that you can, if  
21       you do a blend that's roughly 54 percent biodiesel  
22       and the remainder Fischer Tropsch, you don't have  
23       any increase in nitrogen oxide emissions.

24              So the implication of that is even at  
25       lesser blends with Fischer Tropsch you actually

1       may have reduction of nitrogen oxide emissions.  
2       And I suggest you all might want to look into that  
3       option, as well.

4               COMMISSIONER BOYD:  Greg, what's your  
5       biodiesel blend --

6               MR. NEWHOUSE:  What the --

7               COMMISSIONER BOYD:  -- component?

8               MR. NEWHOUSE:  It was 54/46 blend with  
9       the Fischer Tropsch.

10              COMMISSIONER BOYD:  Fischer Tropsch and  
11       biodiesel, but what's the bio in the diesel  
12       percentage?

13              MR. NEWHOUSE:  I'm not -- in terms of  
14       the NREL study I can give you that study and give  
15       it to your staff, but I don't know the exact  
16       component of that.  I assume it's one that was --

17              (Parties speaking simultaneously.)

18              MR. NEWHOUSE:  -- to meet the present  
19       ASTM standards, et cetera.  That's my assumption  
20       in that.

21              But it gives you a way of making change  
22       and of making practical change now.  It gives  
23       people on both sides of the border, if you wish to  
24       make biodiesel from waste grease, a new industry  
25       in both sides of the border to pursue.  It's just

1 a practical way to make change now. And I think  
2 it can lead into future partnerships.

3 On the long-term side, --

4 PRESIDING MEMBER GEESMAN: Greg, let me  
5 jump in --

6 MR. NEWHOUSE: Sure.

7 PRESIDING MEMBER GEESMAN: -- there and  
8 say that biodiesel did receive a fair amount of  
9 attention in a workshop either yesterday or the  
10 day before yesterday.

11 (Laughter.)

12 PRESIDING MEMBER GEESMAN: And we do  
13 intend, both in reviewing the staff materials that  
14 were presented yesterday, and also in scheduling a  
15 future workshop with the Air Resources Board and  
16 the South Coast Air Quality Management District,  
17 which I said I'd like to see by the end of June.  
18 And there's apparently some back and forth as to  
19 whether it might not more likely end up in July.

20 But we do intend to give more attention  
21 to the air quality ramifications of a biodiesel  
22 blend. That will be a portion of our similar  
23 discussion on the higher ethanol blend, as well.

24 So I mean we're focused on some of the  
25 things that might be able to be put into effect in



1 the near term and have a demonstrable impact in  
2 the near term, rather than simply focus on some of  
3 these longer term horizon options.

4 MR. NEWHOUSE: That would be great,  
5 having California get to a standard, if you will,  
6 for B-20 or some variation of that would be great  
7 news all the way around. At least get some clear  
8 guidance to people who propose that as an option.

9 And the other thing I would lay out for  
10 you in terms of going from kind of one side of the  
11 spectrum, which is what I consider the practical  
12 and now, to the longer term spectrum, which is  
13 simply going along with the Governor's plan for a  
14 hydrogen highway.

15 We have some really unique opportunities  
16 in this region because of things that already  
17 exist here. We have one of the largest fueling  
18 facilities, if you will, at the City of Chula  
19 Vista. We have some vehicles in this region that  
20 are running off of hydrogen. And we have a  
21 manufacturer in this region, ISE Corporation, that  
22 actually puts together buses that will run on  
23 hydrogen.

24 We will have, my understanding is a  
25 Department of Defense demonstration program

1       beginning later this year on hydrogen technology.

2               And in the longer term it gives us, on  
3       both sides of the border, something to partner  
4       with now as we're working out all of the details  
5       in the hydrogen technology, and using that as a  
6       fuel and/or using that as a stationary source of  
7       energy, to be able to have a long-term productive  
8       partnership.

9               And I think both sides, the practical  
10       now and the long term, offer you good pathways in  
11       this region to work together in new partnerships.

12              That's what I would lay out for you.

13              COMMISSIONER BOYD:  Thank you.

14              MR. OLSON:  Thank you, Greg.  I have one  
15       question regarding -- congratulations on your  
16       success here.  This region is noted as a pioneer  
17       throughout the country in success in alternative  
18       fuels.  The County and different cities, Chula  
19       Vista, the airport CNG projects; even going  
20       actually into Imperial with Calexico's CNG school  
21       buses.  And you're a prominent part of that with  
22       your role as coordinating a lot of the programs  
23       for funding out of DOE, or at least administering  
24       that.

25              And I guess one of the questions, about

1 five or six years ago the U.S. Department of  
2 Energy was looking for ideas on cross-border clean  
3 cities programs with sister cities, Tijuana, San  
4 Diego, Juarez and El Paso and a couple others.  
5 And I don't know if they really got much response.  
6 Is that something that you -- have you looked into  
7 that? Are you open to that kind of cross-border  
8 doing joint demonstrations with a sister city, so  
9 to speak, for --

10 MR. NEWHOUSE: We're very much open to  
11 that. I believe in El Paso/Juarez, they actually  
12 have a partnership working together. And we would  
13 very much be interested in doing the same type of  
14 partnership between our area and the Tijuana  
15 region, as well. Very much so.

16 PRESIDING MEMBER GEESMAN: I wonder what  
17 your reaction would be to a stronger regulatory  
18 push to encourage saturation of CNG in the heavy  
19 duty vehicle sector, public sector fleets in  
20 particular.

21 MR. NEWHOUSE: Gee, thanks for that  
22 questions.

23 (Laughter.)

24 MR. NEWHOUSE: I'm really not in favor  
25 of the stronger regulatory push. I strongly

1 believe in incentives. I'm convinced that in some  
2 cases the regulatory push to the north has  
3 resulted in some very difficult CNG projects at  
4 school districts, in particular. They've had the  
5 great opportunity of getting vehicles and being  
6 able to operate on natural gas. They haven't  
7 always had the maintenance facilities nor the  
8 technicians that have been able to maintain them.

9 That's changed over time.

10 But I think what's more valuable than a  
11 regulatory approach, and even more valuable than  
12 incentives, at least in many regions alternative  
13 fuels are implemented based upon good intentions  
14 of good people.

15 So even in the San Diego area we may  
16 have a CNG project in the north, a CNG project in  
17 the south, one or two in the eastern portion of  
18 the County, none of which allow the other, for  
19 various liability or other reasons, to be able to  
20 use their fueling facilities. So we have a lot of  
21 islands of good intentions.

22 And coming up with a plan, I don't like  
23 the word plan, but some type of integration action  
24 where people work together would be a great and  
25 huge value, which again is something that you

1       folks could facilitate with a lot of us. But in  
2       the border region, as well.

3               MR. OLSON: Okay, at this point I'd like  
4       to go to our next panel member, and I'm going to  
5       ask Francisco Doñez of U.S. Environmental  
6       Protection Agency to make any comments, your  
7       recommendations, insights on this session.

8               MR. DOÑEZ: Thank you, again. EPA's  
9       main priority for air quality along the border, of  
10      course, is to characterize and reduce emissions  
11      that are interfering with attainment of the  
12      national air quality -- national ambient air  
13      quality standards.

14              As the CEC Staff document indicates,  
15      both San Diego and Imperial County have problems  
16      with ozone and particulate matter. While Imperial  
17      County also has problems with -- or has measured  
18      high concentrations of carbon monoxide,  
19      specifically at the border crossing.

20              EPA has found that working on  
21      transportation issues specifically can have  
22      significant impacts on each of these pollution  
23      problems.

24              For example, as part of border 2012, EPA  
25      Region IX is supporting U.S./Mexico border clean

1 diesel demonstration projects, which is a scoping  
2 study to evaluate the costs and (indiscernible)  
3 emission control retrofit technologies on Mexican  
4 heavy duty diesel vehicles operating in the San  
5 Diego/Tijuana region.

6           Upon completion of the study it is  
7 anticipated that up to 20 Mexico domiciled heavy  
8 duty diesel trucks operating in the border region  
9 will be retrofitted with appropriate emission  
10 controls to demonstrate the viability under  
11 Mexican operating conditions.

12           Demonstrating successful cost effective  
13 approaches to reducing air pollution from Mexican  
14 heavy duty diesel vehicles will help with the  
15 market for cleaner diesel in the border region,  
16 and provide an important tool for Mexico as it  
17 moves to implement similar cleaner diesel  
18 projects.

19           In another related project, the  
20 California Resources Board is receiving EPA grant  
21 support to analyze the trucks that routinely  
22 crosses the border from Mexico into California.

23           ARB will develop and conduct fuel  
24 surveys to determine fleet composition and  
25 activity characteristics such as country of

1 registration; vehicle characteristics like model  
2 and year and odometer readings, engine model,  
3 year, make, et cetera; trip origins and  
4 destinations; fueling habits; and future plans to  
5 increase travel in California and other states.

6 Fuel samples from the subset of trucks  
7 will be collected for analysis. Another subset of  
8 trucks will be temporarily equipped with global  
9 positioning systems to track vehicle activity all  
10 over the U.S.

11 The information collected in the study  
12 will increase our understanding of how much  
13 Mexican trucks contribute to the region's  
14 emissions, and where geographically these  
15 emissions are occurring.

16 Finally, border 2012 is also supporting  
17 ongoing work to pave dirt roads in Baja,  
18 California. This is not so much a cargo-moving  
19 issue as a general vehicle transportation issue.  
20 This road-paving project in Ensenada and Rosarito,  
21 Tecate and Tijuana is underway and is anticipated  
22 to significantly reduce PM10 emissions.

23 The North American Development Bank is  
24 providing significant support for this project,  
25 which will pave 2.3 million square meters of

1 streets in those five municipalities.

2 Those are my specific examples. Just as  
3 a very general remark I want to strongly endorse  
4 the CEC Staff recommendation that the Commission  
5 actively participate in the border 2012 program.  
6 Just in the area of air quality alone border 2012  
7 has several subgroups and forums that are direct  
8 interest here, including the borderwide air policy  
9 forum, the California/Baja, California regional  
10 workgroup. And within that work group, the San  
11 Diego/Tijuana air task force and the Imperial/  
12 Mexicali air task force, several of whom's members  
13 are here present in the room.

14 These groups hold periodic public  
15 meetings and the CEC's interest and expertise  
16 would be most welcome in these collaborative  
17 processes.

18 Thank you.

19 PRESIDING MEMBER GEESMAN: What's the  
20 timeframe for the road-paving program, and where  
21 does the funding come from?

22 MR. D YEZ: EPA provides some amount of  
23 funding, as I said. It's also leveraged from the  
24 NAD Bank. I'm not sure of the precise timing;  
25 I'll have to check in with my colleagues and get



1 back to staff.

2 PRESIDING MEMBER GEESMAN: Yeah, we'd  
3 like to learn more about that.

4 MR. D YEZ: Okay.

5 MR. OLSON: Okay, the next speaker we'd  
6 like to call on is Byron Wear, who is with the  
7 Corrizo Gorge Railway and has a presentation. I  
8 think this is a potential solution for some of the  
9 transportation mode shift. So, Byron, please go  
10 ahead. Now, there's also a little remote there  
11 for you.

12 MR. WEAR: Thank you. It's a pleasure  
13 to be here, Commissioners and Staff. I'm Byron  
14 Wear; I'm a former -- San Diego City Council.  
15 Please don't hold that against me today. My  
16 retirement check still clears the bank.

17 (Laughter.)

18 MR. WEAR: I get to play with trains, so  
19 that's my new job. I also have the opportunity to  
20 chair a state commission that led to the  
21 consolidation of this agency, SANDAG, with our  
22 Transit Authority and our Airport Authority.

23 I'm here with Sergio Reyes. He's our  
24 Director of Business Development in Baja,  
25 California. And he's available for questions.

1 Sergio's father helped start the Baja, California  
2 corporation that we are part of in terms of our  
3 binational railroad.

4 Moving on here, our railroad is  
5 considered the impossible railroad. It was  
6 started in 1908 construction during -- it survived  
7 floods, survived World War I. And it basically  
8 was the dream of John D. Spreckles, to actually  
9 connect San Diego with the east. His dream was  
10 for an eastern link in San Diego.

11 It's a very difficult railroad in terms  
12 of the terrain. This happens to be a slide of the  
13 reopening trip across the famous Goat Canyon  
14 trestle. It's the longest wooden trestle, curved  
15 trestle, about 600 feet, in the United States.

16 At the Golden Spike Celebration,  
17 November 19th it was connected. John D. Spreckles  
18 is pictured there. I happen to have a personal  
19 connection, that the man standing next to him with  
20 the moustache is my wife's grandfather, Colonel  
21 Esteban Cantu. So, what goes around comes around.

22 Our railroad has gone through, as I  
23 mentioned, all kinds of issues over the years.  
24 It's been basically up until a year and a half ago  
25 was out of service for about 25 years. Inadequate

1 maintenance, wildfires, flash floods and  
2 vandalism.

3 Our railroad was started two  
4 corporations. The actual American company was  
5 started in 1997 with the goal of reopening the  
6 desert line; and then four years later we started  
7 our affiliate in Mexico. We have approximately 65  
8 employees which are split between both Baja,  
9 California and San Diego.

10 Our president of our company, Gary  
11 Sweetwood (phonetic) personally led the effort to  
12 repair the tunnels. He has extensive construction  
13 background and we were able to go in and spend  
14 about \$6 million and totally reestablish the  
15 connection.

16 The issue here is that SANDAG and the  
17 other agencies in San Diego had no idea that this  
18 railroad would be open as quick as it was. So  
19 that leaves us kind of scrambling for lots of  
20 policy issues.

21 We spent, as I mentioned, about \$6  
22 million getting the rail open. This is, again,  
23 the Goat Canyon trestle. And then this is a UP  
24 test train we brought through back in 2004 to test  
25 our tunnels. Union Pacific is our strategic

1 partner to the west, and we have a marketing  
2 agreement and interchange agreement with them at  
3 Seeley, California. And we are able to handle  
4 double-stack containers through our tunnels.

5 Before opening we were hit with some  
6 damage here. We had a fire that started and swept  
7 across the border and took out one of our tunnels  
8 and bridges. Our inhouse construction team that  
9 repaired that bridge, and it's fully operational  
10 now.

11 Our goal is to -- really our corporate  
12 culture is a binational company that serves both  
13 Baja, California and San Diego, to provide  
14 efficient train and passenger services. We have  
15 actually a passenger rights in Mexico; we do not  
16 have passenger excursion services in the United  
17 States as yet. But that's something we are  
18 seeking. Primarily because we think we can better  
19 coordinate that service and avoid problems with  
20 freight service.

21 We're actually hauling sand out of our  
22 own right-of-ways, a major impediment in the  
23 desert portion where we have large sand dunes that  
24 cover the track. So we've been conducting sand  
25 operations.

1           We also -- talking about LP gas today.  
2       We are the folks that bring the gas across the  
3       border and currently in San Ysidro into Mexico.  
4       That is beginning to shift. There are some major  
5       security issues in terms of bringing that kind of  
6       product down through downtown San Diego. And we  
7       are looking at shifting it to the east. We  
8       actually can get a much more favorable  
9       transportation rate for the gas companies.

10           In addition to gas we have construction  
11       sand, lumber, paper, all kinds of different  
12       commodities we've been hauling over the last three  
13       years. We represent many products out of Baja,  
14       California, everything from products for Tecate  
15       Beer to wood and lumber and all kinds of  
16       construction products, plastics.

17           And this gives you an idea of what's  
18       happened just in three years. We've had a  
19       tremendous growth in terms of our business. This  
20       is before opening the actual desert line, this is  
21       just the stuff coming down through San Diego  
22       crossing into Mexico.

23           The previous operator really didn't move  
24       the railroad in the direction that the government  
25       in Mexico wanted, and we've really been very

1       aggressive in terms of marketing. So we've had a  
2       tremendous increase, over 275 percent in volume.

3               There is a gamma ray machine installed  
4       at San Ysidro; one is yet to be installed in  
5       Campo. But it provides all the adequate security  
6       and is actually much more easier for customs to  
7       look at a train than a series of 150 trucks.

8               The railroad's very unique. We actually  
9       have a full-on official police force, fully peace  
10      officer status, approved by the Governor. We have  
11      six sworn officers. We do an excellent job in  
12      providing security on our railroad.

13              Our first revenue freight came across  
14      the desert line, and this is going into Mexico;  
15      that's tunnel number four -- December 30th. And  
16      since that time we've had approximately 100 rail  
17      cars. And about every few weeks it seems like  
18      it's doubling in the capacity or the quantity.

19              Long-term goals are to connect Baja,  
20      California with some kind of a rail service. I  
21      think in your report you talked about the import  
22      of Ensenada as a project. And that's been talked  
23      about. What I want to do today is talk about how  
24      we might be able to accelerate activity in and  
25      around Ensenada on a short-term basis.

1                   First some global numbers from Mexico.

2           The red area there shows a tremendous amount of  
3           capacity of rail service on the western portion of  
4           Mexico. The bulk of it is going from Mexico City  
5           to Laredo.

6                   And the second slide here again gives  
7           you kind of an idea of what's happening between  
8           the borders in terms of freight back and forth.  
9           UP is one of the largest railroad companies that  
10          links with Mexico. Actually they have about a 26  
11          percent share in one of the Mexican railroads. So  
12          that's part of their strategic plan, is to really  
13          serve both countries.

14                   And we see this area as really  
15          strategically linking the Pacific Rim and the  
16          Imperial Valley to the east with North America and  
17          mainland Mexico in terms of our strategy.

18                   Let me go a little bit further about  
19          that. Our whole marketing arm is, we call it  
20          rail-port, it's to combine shipping, trucking and  
21          rail. So although we're a railroad, we understand  
22          that there is a place for railroads, there's a  
23          place for trucks, and obviously shipping.

24                   So we're trying to take the best of all  
25          those things and establish something called the

1 international California corridor. Now, the red  
2 dotted line there gives you the idea, gives you  
3 the route generally of our rail service.

4 We basically operate the rail from  
5 Tijuana to Tecate on the Mexican side of the  
6 border. On the U.S. side the official port of  
7 entry is Campo. And then we operate into the  
8 Imperial Valley and we hand off to Union Pacific  
9 with our interchange agreement.

10 We also have the ability to connect  
11 Mexico with Mexico, because the railroads in  
12 Mexico connect to Mexicali, but they don't connect  
13 to Tijuana. So we are Mexico's connection in  
14 terms of providing inbound product from Mexico to  
15 get into the Tijuana/Tecate area.

16 Our long-term plan is to -- we talked  
17 about Ensenada, is to establish ultimately a  
18 larger port there. However, Ensenada has done an  
19 excellent job in maximizing that port. The green  
20 line is the potential trucking component. In  
21 about a month from now we're going to be testing a  
22 scenario where we would actually ship products  
23 from the Imperial Valley on our railroad. We  
24 would transfer at Tecate onto truck and then haul  
25 it out of the Port of Ensenada as a short term.



1       Ultimately wind up with a rail linkage there in  
2       the future.

3               This is a facility which is already  
4       completed in Tecate at the Pinelli Lumber site.  
5       It's secured; it was constructed; and we have an  
6       agreement to lease that facility for this  
7       multimodal plan. It's right on the toll road.

8               There's an additional facility that's  
9       been talked about at a place called El Ferito,  
10      which we're partnering on that, which ultimately  
11      would be constructed further to the west. But the  
12      facility we have is ready to go. It's secure with  
13      fencing and has a rail into it. And currently  
14      it's being used for various lumber products.

15              The other strategic partner on this map  
16      is, take a look here at Toyota has built a plant.  
17      I think earlier we talked about Toyota and their  
18      commitment to clean fuels. But they actually have  
19      a plant that they've constructed, but they didn't  
20      do a particularly good job. They actually didn't  
21      think rail was possible, so they invested millions  
22      of dollars in trucking. Now they've been meeting  
23      with us trying to figure out how they can get  
24      their parts on rail coming in, and then  
25      automobiles on rail going out. So we are working

1 with Toyota.

2 We've also had interest from Kia is  
3 building a plant, I believe, in the Rosarito area.  
4 And so we've been having discussions with them, as  
5 well, in terms of hauling automobiles.

6 The Port of Ensenada, capacity is  
7 350,000 containers. They're moving between about  
8 75- or 80,000 containers to date. They've added  
9 additional crane capacity; they've dredged their  
10 little harbor there. And we see that as a short-  
11 term solution to basically trying to bypass Los  
12 Angeles and create this other connection.

13 Now, in terms of volumes, it's not going  
14 to be a lot, but we think it'll help provide this  
15 particular region with a strategic advantage.

16 We are working with the Port of San  
17 Diego. The problem there is it's very difficult  
18 to get into the port. They lack the adequate real  
19 estate around the port. But we certainly are  
20 committed to working with the Port of San Diego as  
21 well, in that also, a partner. But right now we  
22 can't go through the -- there's a switch issue at  
23 Burlington Northern, and there's some political  
24 issues that are making it very difficult for us to  
25 access our own port. So we see Ensenada as an

1 interim solution.

2 The port is made, obviously, maritime  
3 high priority in terms of maritime cargo. They've  
4 done a good job in the last five years. But we  
5 really want to fully explore the rail  
6 alternatives. We actually need a whole other, I  
7 call it a \$100 million third track, from the  
8 border to get into the port, because the current  
9 rail line is actually being used by the trolley 21  
10 hours out of the 24 hours in the day. And we only  
11 can move rail in that three-hour window between  
12 about 2:00 in the morning and 5:00. So we need  
13 another third rail to connect to the port. Again,  
14 that's a \$100 million infrastructure project.

15 In terms of facts of North American rail  
16 traffic, if you haven't heard now there's a big  
17 demand for rail. Railroads getting very picky.  
18 I'm talking about the major, class 1 railroads.  
19 They're dictating who and what they want on their  
20 railroad. They actually basically told United  
21 Parcel Service that we can't serve you anymore  
22 because of their tremendous demands.

23 And they're getting picky. They've  
24 raised rates that affect the market, because they  
25 don't have the capacity that they really need.

1           The Sunset route, which runs from L.A.  
2       down to Phoenix and on down to Yuma and on into  
3       Arizona. There's one train every 15 minutes.  
4       It's jammed and it's creating major problems for  
5       the Port of Los Angeles. This gives you some idea  
6       of the demand in terms of not only railcars, but  
7       intermodal, the last year. And if I were to look  
8       at the rail facts, it's probably a very similar  
9       curve in 2005. Gives you an idea of just, it's  
10      gone off the charts.

11           Los Angeles and Long Beach, the port  
12      there handles 40 percent of all U.S. waterfront  
13      commerce. There's a very good report the  
14      California State Lands Commission did on the  
15      issues around ports that you might be ahold of to  
16      give you some baseline information.

17           Sixty percent of all the imported cargo  
18      going to Chicago actually flows through the Port  
19      of Los Angeles and Long Beach. \$392 billion value  
20      of trade. The challenge, though, is \$16 billion  
21      worth of needed infrastructure.

22           We talked briefly about the  
23      transportation side in and around the border, but  
24      to really make that port avoid the congestion,  
25      there needs to be some serious spending. And this

1 is kind of the shopping list of what you need to  
2 do to really make this whole system work.

3 The question is, you know, in light of  
4 our budgetary constraints where are we going to  
5 come up with \$16.5 billion.

6 The other issue, of course, is the labor  
7 problems. This is a photograph of the I-710 up  
8 there in the L.A./Long Beach area. The photograph  
9 to the left is the labor shutdown during the  
10 strike of 2002. And normal conditions is on the  
11 right. So, obviously we have some issues there.

12 And we think rail and additional  
13 infrastructure, and we were looking at the  
14 entire -- looking at Mexico and California as  
15 collaborative partners.

16 In the Imperial Valley we see a  
17 tremendous opportunity for improved rail service  
18 as I talked about earlier, going out of the Port  
19 of San Diego; jobs, improved service, costs,  
20 economic development, even the little visitor  
21 industry with the potential passenger excursion  
22 train operating through the Gorge would be a real  
23 highlight for Imperial Valley, one of our  
24 breadbaskets here in California.

25 This gives you an idea of the potential

1 container demand just from the Imperial Valley  
2 alone. We're looking at 53,000 containers a year  
3 of ag products. Everything from hay to  
4 vegetables, livestock, seed crops. And that stuff  
5 needs to be moved. Currently it's going out of  
6 the Port of -- a lot of it's going out of the  
7 Port of L.A.. And with the congestion, the price  
8 is going up in trucking. So, again, we see the  
9 railroad as an opportunity to solve that problem.

10 And that would be a capacity of daily  
11 two railcars, or two trains per day for exports  
12 out of the Imperial Valley in terms of what the  
13 potential could be.

14 Overall we see our railroad with a  
15 potential of about 250,000 containers a year. And  
16 those numbers have been run by Union Pacific in  
17 terms of getting this whole international corridor  
18 open.

19 In addition, we're looking at helping  
20 Imperial Valley in terms of their hay export; but  
21 also bringing in urea, fertilizers into the  
22 Valley, as well, in terms of the backhaul.

23 Our airport services are everything from  
24 inventory control, logistics, the whole thing.  
25 Basically it's a one-stop shop. You put you stuff

1 on the train in the Imperial Valley and it goes  
2 all the way to China or vice versa, products that  
3 need to come from the Pacific Rim, you know, into  
4 Chicago, could come right through our railroad,  
5 bypassing again the Port of Los Angeles.

6 And then in the Imperial Valley we're  
7 looking at establishing these various railport  
8 facilities in terms of the connection with Union  
9 Pacific.

10 And that basically concludes my  
11 presentation. I just want to give you a brief  
12 update, and feel free to contact Sergio and myself  
13 if you need any additional information. And I'm  
14 available for questions.

15 PRESIDING MEMBER GEESMAN: Thank you for  
16 that. Are you a public company or private  
17 company?

18 MR. WEAR: Private company.

19 PRESIDING MEMBER GEESMAN: Thank you.

20 MR. ADAMS: I just have one question.  
21 We saw an article about this proposed port, Punta  
22 Colonet, I think, down 150 miles south of the  
23 border. Actually we tried to get somebody who was  
24 identified in the article to come here and were  
25 unsuccessful.

1                   But I wondered if you had any thoughts  
2           on that in terms of the potential for that port,  
3           and this is a major if, but if that port would be  
4           built the technicalities or the -- what would it  
5           take to bring rail to there? And what sort of  
6           potential could that be if, in fact, that thing  
7           were built?

8                   MR. WEAR: Well, you're talking about  
9           some very serious money. It's been talked about,  
10          you know, up to \$3- \$4-billion to build the port,  
11          plus the rail connections. And John D. Spreckles  
12          built our railroad in a kind of an unusual  
13          configuration to bypass the mountains and San  
14          Diego. And you're talking about some serious  
15          tunnel work and bridge work. And if you were to  
16          blast through the mountains and have it connect to  
17          Mexicali.

18                   I think the jury's still out on what  
19          might happen with that. Our philosophy is that  
20          we're going to go ahead and start that connection  
21          now because there's capacity at Ensenada. And so  
22          we're going to take advantage of the opportunity.  
23          Basically build that future customer base that  
24          might occur if and when that port was ever built.

25                   But whether it's a five-year window or a



1       ten-year window, we really just don't know at this  
2       stage.

3               Yeah, we can have some different  
4       scenarios. We had actually looked at a rail  
5       connection from Tecate down to the northern part  
6       of Ensenada, and there was some political  
7       opposition to expansion of the port in that  
8       particular area.

9               So there are some other different  
10       alternatives in terms of how you meet that demand.  
11       And they're going through that analysis now. And  
12       I think at some point in the next six months  
13       you're going to see either it's going to move  
14       forward or it's not going to, it's going to slow  
15       down because of the numbers. And that's what's  
16       being studied right now.

17              MR. ADAMS: Would it make more sense  
18       coming in from Mexico City from the east heading  
19       towards the coast, rather than coming from the  
20       north. Is the terrain any less hilly or are you  
21       still basically talking about tunneling through  
22       mountains and --

23              MR. WEAR: Well, you can --

24              MR. ADAMS: -- no matter which way you  
25       come in?

1           MR. WEAR:  If you don't go over the  
2           mountain into Mexicali it's a lot cheaper to come  
3           north right to Tecate and then connect with us.  
4           And we would hope they would look at that as a  
5           much cheaper alternative than trying to run the  
6           railroad all the way over the mountain range, and  
7           then up to Mexicali.

8                     And the question there is the mutual  
9           trust between, you know, we've had issues with  
10          customs on both sides of the border as we started  
11          our railroad.  And, you know, in terms of the  
12          trust factor among customs agents of product going  
13          inbound into Mexico and then back into the United  
14          States; and having the right bonding and going the  
15          other direction.

16                    So we're in kind of a wait-and-see mode  
17          on some of those organizational issues.  But it  
18          would be much cheaper for them to build the  
19          railroad from Ensenada directly to Tecate and have  
20          us haul it, invest in the U.S. side in terms of  
21          capacity issues that improve velocity of the  
22          railroad.

23                    And also the additional construction we  
24          might do on the U.S. side in smaller pieces than  
25          100 miles through a difficult mountain range.

1 MR. ADAMS: Thank you.

2 MR. OLSON: Byron, I have another  
3 question. Has your company considered or tried  
4 using LNG as a fuel, if not on the long haul, in  
5 your switchyard for the locomotives?

6 MR. WEAR: Not yet, but that's something  
7 we would certainly want to work with. All of our  
8 locomotives we lease from Union Pacific currently.  
9 And we have been basically, because of this  
10 project being as costly as it is, you know, we're  
11 just getting this infrastructure established.

12 And we've had to invest millions of  
13 dollars to restore this railroad, and that's been  
14 our financial priority. But the long-term benefit  
15 of the fuel savings and some of the other issues,  
16 we would not be -- we want to work forward with  
17 you on that as a strategic goal.

18 The only issue there is the, you know,  
19 railroads are regulated by the federal government.  
20 And we'd have to see whether it would be a mandate  
21 or whether it would be something we could get some  
22 kind of a benefit out of, or some tax credits or  
23 some financial incentives to -- or maybe some low  
24 interest loans to acquire that kind of equipment.

25 MR. OLSON: Okay, and I guess formal

1 comment on the Committee, Al Sweedler, do you have  
2 any other comments on this area?

3 DR. SWEEDLER: Again, to bring it back  
4 to the IEPR. It would seem to me the main areas  
5 that you'd want to focus on in the report with  
6 respect to energy is that one, it's going to be  
7 clear that there will be many more Mexican trucks  
8 coming into California. There may be a temporary  
9 hiatus with legal challenges, but over time if  
10 NAFTA survives, which it looks like it will, we're  
11 going to see many many more trucks.

12 And then that is connected to the  
13 economic vitality of this whole region in  
14 California. So the fuels for these trucks, where  
15 will they come from; what's the source of supply;  
16 and particularly what type of fuel.

17 If they're going to have to use CARB  
18 diesel, how will that get to Mexico; what will be  
19 the supply chain and the cost of that.

20 So, from the energy perspective, to  
21 focus on the fuel and to just be pretty sure that  
22 the volume is going to increase. The ports of  
23 entry and the other things that's being handled by  
24 Caltrans quite competently and in a comprehensive  
25 way.

1                   But the energy parts with respect to  
2                   fuels are going to show up somewhere in this  
3                   report.

4                   MR. ADAMS:  You touched on it briefly,  
5                   but I think there could be room for more detail.  
6                   The other thing I noted in the analysis which you  
7                   didn't mention is that rail traffic is roughly  
8                   four times more efficient in terms of energy use  
9                   than trucks.

10                  So, to the extent that you can increase  
11                  rail traffic of goods, you are, in effect, being  
12                  much more energy efficient, using a much more  
13                  energy efficient mode of transportation.  And  
14                  that's something that I think is something that  
15                  really speaks to rail, expansion of rail.  
16                  Particularly when, as we said, 90 percent of the  
17                  goods crossing the border by truck, if you could  
18                  reduce that by 10, 20 percent, by rail, that's a  
19                  significant decrease in energy use.  And that's  
20                  also a decrease in adverse air impacts and  
21                  congestion, as well.  So, I think rail is really  
22                  something we'd like to look at in much more  
23                  detail.

24                  Eric Meandros, who I believe you got a  
25                  PowerPoint presentation that Dale gave you,

1       unfortunately couldn't make it today. But perhaps  
2       we can get him back. He's an expert on switching  
3       from diesel fuel to LNG, CNG for both trucks and  
4       rail. And I hope to get his analysis incorporated  
5       into our analysis, because I think that's really  
6       part of the solution, is well, trucks are going to  
7       be with us, and if we can run them on other fuels,  
8       I think it's in our interest to do so.

9               MR. WEAR: Let me jump in and also say  
10       that there's been a culture with customs because  
11       obviously trucking has been going on here in our  
12       area. Now that we're shifting over to the  
13       railroad we would like to get additional crossings  
14       for our railroad, because it creates a competitive  
15       disadvantage for us.

16              Currently the customs will only allow  
17       us, I think, two crossings at Campo. And, you  
18       know, which comes first, the chicken or the egg.

19              So we want to have, you know, up to six  
20       to eight crossings so that product can move  
21       quickly and rail can be competitive with trucks.

22              MR. ADAMS: One last question. In terms  
23       -- if you know, in terms of the time that it takes  
24       to let's say inspect trucks, 10, 20, 100 trucks,  
25       versus a train, do you have any feel for how much

1       quicker it is inspecting a train?

2               MR. WEAR:  It's much faster doing a  
3       train.  The entire manifest is on a computer  
4       program.  The customs gets it in advance.  They  
5       know what's on every car.

6               If there's a concern about a security  
7       issue they can have us unload that particular car.  
8       We can set it aside, and the rest of the train  
9       would move out.

10              So it's, in terms of an exact amount of  
11      time we've had, you know, it's been a hour or two  
12      usually at Campo for that staff to come up and  
13      look over the train.  Because our products just  
14      getting going, it might be six or eight cars.  We  
15      haven't really felt the full impact of having a 50  
16      or 100, you know.

17              But it's much faster and easier for  
18      customs to do a train than it is 150 trucks.

19              MR. ADAMS:  Thanks.

20              MR. OLSON:  Thank you very much.  I  
21      think that concludes our transportation panel.  
22      Thank you, panel members, for participating today.

23              (Applause.)

24              MR. OLSON:  We have -- Commissioner  
25      Geesman, --

1                   PRESIDING MEMBER GEESMAN: I've got a  
2                   blue card. Skip Fralick.

3                   MR. FRALICK: Thank you; I'll try to  
4                   make this quick, I know everybody's anxious to  
5                   leave. Thanks for the informative session today.

6                   I'm especially interested in the  
7                   comments on renewable energy from Alan Sweedler  
8                   and Greg Newhouse on hydrogen. I'd like to  
9                   suggest investigation into a solution of hydrogen-  
10                  based economy. Eventually hydrogen is generated  
11                  from renewables, but initially perhaps natural gas  
12                  because it's much cheaper and perhaps more  
13                  available than we thought.

14                 This takes off from (inaudible) hydrogen  
15                 concept integrating fuel cell vehicles in  
16                 generation of electricity. And they have one  
17                 variation which is instead of parking the vehicles  
18                 at a building or a workplace and plugging in  
19                 there, make it dispatchable and valuable for SDG&E  
20                 in smoothing out the intermittency of renewables,  
21                 themselves, by parking at a park and generating  
22                 station controlled by SDG&E.

23                 Having computers to (inaudible) from the  
24                 various vehicle owners who would program their  
25                 selling price for electricity. And if it meets



1       SDG&E's needs, and it meets peaking power, then it  
2       buys that and it's all handled by computers either  
3       directly with the car or with your laptop at your  
4       office.

5               But it creates a dynamic scenario where  
6       you don't need peaking, natural gas peaking plants  
7       anymore as AB-11 says you have about six times the  
8       electrical capacity in 30 or 50 kilowatt fuel cell  
9       vehicles when you're doing the U.S. electrical  
10      capacity, itself.

11             And it's clean. And as soon as energy  
12      prices come down through some promising  
13      technologies like the technologies in photolysis  
14      (inaudible), the cost of solar generated or  
15      hydrogen through electrolysis will be paralleling  
16      in cost effectiveness with the lower cost of fuel  
17      cells. Those have to be expanded by economies of  
18      scale initially to reach that point.

19             Then looking say 20 years down the road  
20      I think you need infrastructure planning at this  
21      point are really long to prepare for that.

22             Thank you.

23             PRESIDING MEMBER GEESMAN: Thank you  
24      very much. Anybody else in the audience care to  
25      address us?

1                   MR. PERKINS: Thank you, again. Just a  
2                   brief observation.

3                   MR. OLSON: Could we get your name,  
4                   please?

5                   MR. PERKINS: Dan Perkins, the Sierra  
6                   Club. I'm sorry.

7                   And the CNG has been worked on for a  
8                   long time for the internal combustion engine. And  
9                   it is a good viable method of doing it. However,  
10                  one of the failures that we've had is that having  
11                  a dual fuel capacity it was too easy for the  
12                  customer to reach down and flip the switch and  
13                  turn over to regular gasoline.

14                  There's a big effort for SDG&E to do  
15                  CNG, as well. And a lot of these things have  
16                  failed because we don't have the infrastructure  
17                  ready in order to do that.

18                  But I might add that an ideal scenario  
19                  for CNG is the diesel engine. And so for the  
20                  trains that you're talking about and the trucks  
21                  that are crossing the border, they have a  
22                  tremendous opportunity to clean their pollution up  
23                  by using compressed natural gas.

24                  MR. OLSON: Commissioners, we had  
25                  originally planned another panel session on the

1 wrap-up, and the people originally had planned for  
2 that, there's only one left here and that's Al  
3 Sweedler. So, --

4 COMMISSIONER BOYD: Well, wrap us up,  
5 Alan.

6 (Laughter.)

7 DR. SWEEDLER: Just us diehard border  
8 groupies here.

9 Okay, very quickly, again trying to help  
10 the staff put together this report input for the  
11 Commission.

12 A lot of the things we discussed today  
13 are technology issues, future. That's going to  
14 happen with perhaps Commission support, but  
15 they're a little bit outside the realm of this  
16 report.

17 I think the most important thing with  
18 respect to the U.S./Mexico and California/Mexico  
19 border region that might emerge from this whole  
20 process is what was discussed earlier.

21 First of all, the belief on your part  
22 that some sort of national, binational mechanism  
23 is needed above and beyond what already has been  
24 inculcated with the border energy working group  
25 and the working group, the border 12, something

1 more substantial based on the recognition of the  
2 phenomenal increase in the energy infrastructure  
3 that's taking place in, as I said, in somewhat of  
4 an uncoordinated way.

5 PRESIDING MEMBER GEESMAN: Yeah, I think  
6 you've got that from both Commissioner Boyd and  
7 myself.

8 DR. SWEEDLER: Okay, so if that could --  
9 what that'll be called and how that'll be  
10 manifested needs to be discussed more. But that  
11 notion could be very helpful for California and  
12 for long-range planning.

13 Two specific things that have been  
14 discussed and that would be worthwhile to emerge,  
15 the extension of the renewable portfolio credits  
16 to Mexico. That would really give a shot in the  
17 arm for renewable development if they could use  
18 that.

19 PRESIDING MEMBER GEESMAN: And I think  
20 that would be consistent with positions that both  
21 Commissioner Boyd and I took earlier in our  
22 capacity on the Commission's Renewables Committee,  
23 setting up the incentive program for the renewable  
24 portfolio standard.

25 I think the constraint that's likely to

1       exist is transmission.

2               DR. SWEEDLER:  Okay, so then that's the  
3       next step, is to implement that.  And then how  
4       those, well, consider Mexico like Arizona or  
5       Nevada.

6               PRESIDING MEMBER GEESMAN:  Right.

7               DR. SWEEDLER:  That's the idea.  And  
8       then the other specific one, which also was  
9       addressed here, is a way to literally, to put into  
10      practice the notion that it's a single region by  
11      allowing efficiency investments across the border  
12      that clearly benefit California ratepayers, which  
13      will be discussed.  That needs to make its way in  
14      as a spelled-out recommendation with some analysis  
15      to back it up on how that -- and I'll let it go at  
16      that.

17              COMMISSIONER BOYD:  The hard part of  
18      that, Al, is getting Baja interested in that.

19              DR. SWEEDLER:  Right, and I think that's  
20      probably the next time something like this is  
21      done, we need to have some serious representation.  
22      And I understand there were some issues, but it  
23      needs a little more planning.

24              And I know that they are interested, but  
25      the way to do that is important; how to get them

1 involved. And you're absolutely right.

2 One of the points I wanted to make  
3 during the discussion of that, the money that  
4 California or the U.S. puts into energy  
5 efficiency, even through the NAD Bank, I think is  
6 always going to be in the form of seed money, in  
7 small projects.

8 Mexico has to make the major  
9 investments. And they have to see it in their  
10 interests, which many of the forward-looking  
11 people do in CONAE and places like that, truly  
12 understand this.

13 So this would be a real partnership.  
14 But it would have direct benefits to California.

15 PRESIDING MEMBER GEESMAN: Well, I think  
16 where we go from here is to compress down our  
17 report. Ultimately Commissioner Boyd and I will  
18 have a Committee report and we'll take something  
19 to the full Commission.

20 We're hopeful of having a staff product  
21 mid-summer this year. We will be back here at  
22 some point before November in terms of offering an  
23 opportunity on those more focused recommendations.  
24 There's obviously a lot of work ahead of us in the  
25 next several months.

1                   But I think this has been a very  
2       productive discussion today. And I want to thank  
3       all of you for your contribution to it.

4                   (Applause.)

5                   (Whereupon, at 5:00 p.m., the workshop  
6       was adjourned.)

7                               --o0o--

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